GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: September 26, 2005, 10:53:33 ; Search time 105.909 Seconds
(without alignments)
19.216 Million cell updates/sec

Title: US-10-754-485-37
Perfect score: 25
Sequence: 1 LRKED 5

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1826554 seqs, 407025358 residues

Total number of hits satisfying chosen parameters: 1826554

Minimum DB seq length: 0
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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 150 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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2	25	100.0	5	10	US-09-949-039-12	Sequence 12, Appl
3	25	100.0	5	16	US-10-470-987-4	Sequence 4, Appli
4	25	100.0	5	17	US-10-754-485-37	Sequence 37, Appl
5	25	100.0	25	9	US-09-864-761-43713	Sequence 43713, A
6	25	100.0	34	16	US-10-425-115-198758	Sequence 198758,
7	25	100.0	40	9	US-09-864-761-43532	Sequence 43532, A
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9	25	100.0	51	18	US-10-724-972A-6396	Sequence 6396, Ap
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ALIGNMENTS

RESULT 1
US-09-969-748C-16

; Sequence 16, Application US/09969748C
; Publication No. US20030161809A1
; GENERAL INFORMATION:
; APPLICANT: ARIZEKE PHARMACEUTICALS, INC.
; APPLICANT: HOUSTON, Lou, L.
; APPLICANT: SHERIDAN, Philip, J.
; APPLICANT: HAWLEY, Stephen
; APPLICANT: GLYNN, Jacqueline, M.
; APPLICANT: CHAPIN, Steven
; APPLICANT: BASU, Amaresh
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE TRANSPORT OF BIOLOGICALLY ACTIVE
; TITLE OF INVENTION: AGENTS ACROSS CELLULAR BARRIERS
; FILE REFERENCE: 057220-0303
; CURRENT APPLICATION NUMBER: US/09/969,748C
; CURRENT FILING DATE: 2002-12-10
; PRIOR APPLICATION NUMBER: US 60/267,601
; PRIOR FILING DATE: 2001-02-09
; PRIOR APPLICATION NUMBER: US 60/248,819
; PRIOR FILING DATE: 2000-11-14
; PRIOR APPLICATION NUMBER: US 60/248,478
; PRIOR FILING DATE: 2000-11-13
; PRIOR APPLICATION NUMBER: US 60/237,929
; PRIOR FILING DATE: 2000-10-02
; NUMBER OF SEQ ID NOS: 115
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 16
; LENGTH: 5
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: amino acid sequence conserved in pIgR protein
US-09-969-748C-16

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Best Local Similarity 100.0%; Pred. No. 1.6e+06;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db 1 LRKED 5

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US-09-949-039-12
; Sequence 12, Application US/09949039
; Publication No. US20030166160A1
; GENERAL INFORMATION:
; APPLICANT: HAWLEY, STEPHEN B.
; TITLE OF INVENTION: COMPOUNDS AND MOLECULAR COMPLEXES COMPRISING MULTIPLE
; TITLE OF INVENTION: BINDING REGIONS DIRECTED TO TRANSCYTOTIC LIGANDS
; FILE REFERENCE: 057220/1301
; CURRENT APPLICATION NUMBER: US/09/949,039
; CURRENT FILING DATE: 2001-09-06
; NUMBER OF SEQ ID NOS: 114
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 12
; LENGTH: 5
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: peptide
US-09-949-039-12

Query Match 100.0%; Score 25; DB 10; Length 5;
Best Local Similarity 100.0%; Pred. No. 1.6e+06;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LRKED 5
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Db 1 LRKED 5

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RESULT 3
US-10-470-987-4
; Sequence 4, Application US/10470987
; Publication No. US20040219542A1
; GENERAL INFORMATION:
;  APPLICANT: HOUSTON, LOU L.
;  APPLICANT:  SHERIDAN, PHILIP L.
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR IDENTIFYING, CHARACTERIZING,
;  TITLE OF INVENTION:  OPTIMIZING AND USING LIGANDS TO TRANSCYTOTIC MOLECULES
;  FILE REFERENCE: 057220/0703
;  CURRENT APPLICATION NUMBER: US/10/470,987
;  CURRENT FILING DATE:  2003-07-30
;  PRIOR APPLICATION NUMBER: PCT/US02/03059
;  PRIOR FILING DATE: 2002-02-01
;  PRIOR APPLICATION NUMBER: 60/266,182
;  PRIOR FILING DATE: 2001-02-02
;  NUMBER OF SEQ ID NOS: 48
;  SOFTWARE: PatentIn Ver. 3.2
; SEQ ID NO 4
;   LENGTH: 5
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: Illustrative
;   OTHER INFORMATION: conserved peptide among pIgR homologs
US-10-470-987-4

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Qy          1 LRKED 5
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Db          1 LRKED 5


RESULT 4
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; Sequence 37, Application US/10754485
; Publication No. US20050036951A1
; GENERAL INFORMATION:
;  APPLICANT: HENDERSON, DANIEL R.
;  TITLE OF INVENTION: METHODS OF TREATING LUNG DISEASES
;  FILE REFERENCE: 057220/2302
;  CURRENT APPLICATION NUMBER: US/10/754,485
;  CURRENT FILING DATE:  2004-01-09
;  PRIOR APPLICATION NUMBER: 60/439,373
;  PRIOR FILING DATE: 2003-01-09
;  PRIOR APPLICATION NUMBER: 60/480,047
;  PRIOR FILING DATE: 2003-06-20
;  PRIOR APPLICATION NUMBER: 60/494,841
;  PRIOR FILING DATE: 2003-08-12
;  NUMBER OF SEQ ID NOS: 54
;  SOFTWARE: PatentIn Ver. 3.2
; SEQ ID NO 37
;   LENGTH: 5
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
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US-10-754-485-37

  Query Match           100.0%;  Score 25;  DB 17;  Length 5;
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Qy          1 LRKED 5
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Db          1 LRKED 5


RESULT 5
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; Sequence 43713, Application US/09864761
; Patent No. US20020048763A1
; GENERAL INFORMATION:
;  APPLICANT: Penn, Sharron G.
;  APPLICANT:  Rank, David R.
;  APPLICANT:  Hanzel, David K.
;  APPLICANT:  Chen, Wensheng
;  TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
;  TITLE OF INVENTION:  GENE EXPRESSION ANALYSIS BY MICROARRAY
;  FILE REFERENCE: Aeomica-X-1
;  CURRENT APPLICATION NUMBER: US/09/864,761
;  CURRENT FILING DATE:  2001-05-23
;  PRIOR APPLICATION NUMBER: US 60/180,312
;  PRIOR FILING DATE: 2000-02-04
;  PRIOR APPLICATION NUMBER: US 60/207,456
;  PRIOR FILING DATE: 2000-05-26
;  PRIOR APPLICATION NUMBER: US 09/632,366
;  PRIOR FILING DATE: 2000-08-03
;  PRIOR APPLICATION NUMBER: GB 24263.6
;  PRIOR FILING DATE: 2000-10-04
;  PRIOR APPLICATION NUMBER: US 60/236,359
;  PRIOR FILING DATE: 2000-09-27
;  PRIOR APPLICATION NUMBER: PCT/US01/00666
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00667
;  PRIOR FILING DATE: 2001-01-30
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;  PRIOR APPLICATION NUMBER: PCT/US01/00668
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00663
;  PRIOR FILING DATE: 2001-01-30
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;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00661
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;  PRIOR APPLICATION NUMBER: PCT/US01/00670
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: US 60/234,687
;  PRIOR FILING DATE: 2000-09-21
;  PRIOR APPLICATION NUMBER: US 09/608,408
;  PRIOR FILING DATE: 2000-06-30
;  PRIOR APPLICATION NUMBER: US 09/774,203
;  PRIOR FILING DATE: 2001-01-29
;  NUMBER OF SEQ ID NOS: 49117
;  SOFTWARE: Annomax Sequence Listing Engine vers. 1.1
; SEQ ID NO 43713
;   LENGTH: 25
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   OTHER INFORMATION: MAP TO AC003084.1
;   OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 1.3
;   OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 0.99
;   OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 1.4
;   OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL =   1
;   OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 1.3
;   OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 1.2
US-09-864-761-43713

  Query Match           100.0%;  Score 25;  DB 9;  Length 25;
  Best Local Similarity  100.0%;  Pred. No. 1.4e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db          9 LRKED 13
```

```
RESULT 6
US-10-425-115-198758
; Sequence 198758, Application US/10425115
; Publication No. US20040214272A1
; GENERAL INFORMATION:
;  APPLICANT: La Rosa, Thomas J.
;  APPLICANT:  Kovalic, David K.
;  APPLICANT:  Zhou, Yihua
;  APPLICANT:  Cao, Yongwei
;  TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
;  TITLE OF INVENTION:  Plants
;  FILE REFERENCE: 38-21(53222)B
;  CURRENT APPLICATION NUMBER: US/10/425,115
;  CURRENT FILING DATE:  2003-04-28
;  NUMBER OF SEQ ID NOS: 369326
; SEQ ID NO 198758
;   LENGTH: 34
;   TYPE: PRT
;   ORGANISM: Zea mays
;   FEATURE:
;   OTHER INFORMATION: Clone ID: MRT4577_112845C.1.pep
US-10-425-115-198758

  Query Match             100.0%;  Score 25;  DB 16;  Length 34;
  Best Local Similarity   100.0%;  Pred. No. 2e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db         21 LRKED 25


RESULT 7
US-09-864-761-43532
; Sequence 43532, Application US/09864761
; Patent No. US20020048763A1
; GENERAL INFORMATION:
;  APPLICANT: Penn, Sharron G.
;  APPLICANT:  Rank, David R.
;  APPLICANT:  Hanzel, David K.
;  APPLICANT:  Chen, Wensheng
;  TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
;  TITLE OF INVENTION:  GENE EXPRESSION ANALYSIS BY MICROARRAY
;  FILE REFERENCE: Aeomica-X-1
;  CURRENT APPLICATION NUMBER: US/09/864,761
;  CURRENT FILING DATE:  2001-05-23
;  PRIOR APPLICATION NUMBER: US 60/180,312
;  PRIOR FILING DATE: 2000-02-04
;  PRIOR APPLICATION NUMBER: US 60/207,456
;  PRIOR FILING DATE: 2000-05-26
;  PRIOR APPLICATION NUMBER: US 09/632,366
;  PRIOR FILING DATE: 2000-08-03
;  PRIOR APPLICATION NUMBER: GB 24263.6
;  PRIOR FILING DATE: 2000-10-04
;  PRIOR APPLICATION NUMBER: US 60/236,359
;  PRIOR FILING DATE: 2000-09-27
;  PRIOR APPLICATION NUMBER: PCT/US01/00666
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00667
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00664
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00669
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00665
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00668
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00663
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00662
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00661
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00670
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: US 60/234,687
;  PRIOR FILING DATE: 2000-09-21
;  PRIOR APPLICATION NUMBER: US 09/608,408
;  PRIOR FILING DATE: 2000-06-30
;  PRIOR APPLICATION NUMBER: US 09/774,203
;  PRIOR FILING DATE: 2001-01-29
;  NUMBER OF SEQ ID NOS: 49117
;  SOFTWARE: Annomax Sequence Listing Engine vers. 1.1
; SEQ ID NO 43532
;   LENGTH: 40
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   OTHER INFORMATION: MAP TO AC006464.3
;   OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 0.61
;   OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 0.55
;   OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 0.69
;   OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 0.61
;   OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 0.67
US-09-864-761-43532

  Query Match             100.0%;  Score 25;  DB 9;  Length 40;
  Best Local Similarity   100.0%;  Pred. No. 2.3e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db         28 LRKED 32


RESULT 8
US-10-424-599-195043
; Sequence 195043, Application US/10424599
; Publication No. US20040031072A1
; GENERAL INFORMATION:
;  APPLICANT: La Rosa Thomas J
;  APPLICANT:  Kovalic David K
;  APPLICANT:  Zhou Yihua
;  APPLICANT:  Cao Yongwei
;  TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
;  TITLE OF INVENTION:  Plants and Uses Thereof for Plant Improvement
;  FILE REFERENCE: 38-21(53223)B
;  CURRENT APPLICATION NUMBER: US/10/424,599
;  CURRENT FILING DATE:  2003-04-28
;  NUMBER OF SEQ ID NOS: 285684
; SEQ ID NO 195043
;   LENGTH: 50
;   TYPE: PRT
;   ORGANISM: Glycine max
;   FEATURE:
;   OTHER INFORMATION: Clone ID: PAT_MRT3847_18150C.1.pep
US-10-424-599-195043

  Query Match             100.0%;  Score 25;  DB 15;  Length 50;
  Best Local Similarity   100.0%;  Pred. No. 2.9e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db         34 LRKED 38


RESULT 9
US-10-724-972A-6396
; Sequence 6396, Application US/10724972A
; Publication No. US20040147734A1
; GENERAL INFORMATION:
;  APPLICANT: Doucette-Stamm, Lynn
;  APPLICANT:  Bush, David
```

```
;  TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCCUS
;  TITLE OF INVENTION:  EPIDERMIDIS FOR DIAGNOSTICS AND THERAPEUTICS
;  FILE REFERENCE: PATH03-16
;  CURRENT APPLICATION NUMBER: US/10/724,972A
;  CURRENT FILING DATE:  2003-12-01
;  PRIOR APPLICATION NUMBER: 09/450,969
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: 09/134,001
;  PRIOR FILING DATE: 1998-08-13
;  PRIOR APPLICATION NUMBER: 60/064,964
;  PRIOR FILING DATE: 1997-11-08
;  PRIOR APPLICATION NUMBER: 60/055,779
;  PRIOR FILING DATE: 1997-08-14
;  NUMBER OF SEQ ID NOS: 7544
; SEQ ID NO 6396
;   LENGTH: 51
;   TYPE: PRT
;   ORGANISM: S.epidermidis
US-10-724-972A-6396

  Query Match             100.0%;  Score 25;  DB 18;  Length 51;
  Best Local Similarity   100.0%;  Pred. No. 2.9e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db         47 LRKED 51


RESULT 10
US-10-424-599-272800
; Sequence 272800, Application US/10424599
; Publication No. US20040031072A1
; GENERAL INFORMATION:
;  APPLICANT: La Rosa Thomas J
;  APPLICANT:  Kovalic David K
;  APPLICANT:  Zhou Yihua
;  APPLICANT:  Cao Yongwei
;  TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
;  TITLE OF INVENTION:  Plants and Uses Thereof for Plant Improvement
;  FILE REFERENCE: 38-21(53223)B
;  CURRENT APPLICATION NUMBER: US/10/424,599
;  CURRENT FILING DATE:  2003-04-28
;  NUMBER OF SEQ ID NOS: 285684
; SEQ ID NO 272800
;   LENGTH: 59
;   TYPE: PRT
;   ORGANISM: Glycine max
;   FEATURE:
;   OTHER INFORMATION: Clone ID: PAT_MRT3847_88360C.1.pep
US-10-424-599-272800

  Query Match             100.0%;  Score 25;  DB 15;  Length 59;
  Best Local Similarity   100.0%;  Pred. No. 3.4e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db         32 LRKED 36


RESULT 11
US-10-424-599-214694
; Sequence 214694, Application US/10424599
; Publication No. US20040031072A1
; GENERAL INFORMATION:
;  APPLICANT: La Rosa Thomas J
;  APPLICANT:  Kovalic David K
;  APPLICANT:  Zhou Yihua
;  APPLICANT:  Cao Yongwei
;  TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
;  TITLE OF INVENTION:  Plants and Uses Thereof for Plant Improvement
;  FILE REFERENCE: 38-21(53223)B
;  CURRENT APPLICATION NUMBER: US/10/424,599
;  CURRENT FILING DATE:  2003-04-28
;  NUMBER OF SEQ ID NOS: 285684
; SEQ ID NO 214694
;   LENGTH: 61
;   TYPE: PRT
;   ORGANISM: Glycine max
;   FEATURE:
;   NAME/KEY: unsure
;   LOCATION: (1)..(61)
;   OTHER INFORMATION: unsure at all Xaa locations
;   FEATURE:
;   OTHER INFORMATION: Clone ID: PAT_MRT3847_35896C.1.pep
US-10-424-599-214694

  Query Match             100.0%;  Score 25;  DB 15;  Length 61;
  Best Local Similarity   100.0%;  Pred. No. 3.5e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db         57 LRKED 61


RESULT 12
US-10-425-115-288697
; Sequence 288697, Application US/10425115
; Publication No. US20040214272A1
; GENERAL INFORMATION:
;  APPLICANT: La Rosa, Thomas J.
;  APPLICANT:  Kovalic, David K.
;  APPLICANT:  Zhou, Yihua
;  APPLICANT:  Cao, Yongwei
;  TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
;  TITLE OF INVENTION:  Plants
;  FILE REFERENCE: 38-21(53222)B
;  CURRENT APPLICATION NUMBER: US/10/425,115
;  CURRENT FILING DATE:  2003-04-28
;  NUMBER OF SEQ ID NOS: 369326
; SEQ ID NO 288697
;   LENGTH: 63
;   TYPE: PRT
;   ORGANISM: Zea mays
;   FEATURE:
;   OTHER INFORMATION: Clone ID: MRT4577_26383C.1.pep
US-10-425-115-288697

  Query Match             100.0%;  Score 25;  DB 16;  Length 63;
  Best Local Similarity   100.0%;  Pred. No. 3.6e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db         20 LRKED 24


RESULT 13
US-10-450-763-52787
; Sequence 52787, Application US/10450763
; Publication No. US20050196754A1
; GENERAL INFORMATION:
;  APPLICANT: Hyseq, Inc
;  TITLE OF INVENTION: NOVEL NUCLEIC ACIDS AND POLYPEPTIDES
;  FILE REFERENCE: 790CIP3/US
;  CURRENT APPLICATION NUMBER: US/10/450,763
;  CURRENT FILING DATE:  2003-06-11
;  PRIOR APPLICATION NUMBER: PCT/US01/08631
;  PRIOR FILING DATE: 2001-03-30
;  PRIOR APPLICATION NUMBER: 09/540,217
;  PRIOR FILING DATE: 2000-03-31
;  PRIOR APPLICATION NUMBER: 09/649,167
;  PRIOR FILING DATE: 2000-08-23
;  NUMBER OF SEQ ID NOS: 60736
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;  SOFTWARE: Custom
; SEQ ID NO 52787
;   LENGTH: 64
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (1)..(64)
;   OTHER INFORMATION: Xaa = X or * as defined in Table 2
US-10-450-763-52787

  Query Match             100.0%;  Score 25;  DB 18;  Length 64;
  Best Local Similarity   100.0%;  Pred. No. 3.7e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db          5 LRKED 9


RESULT 14
US-10-425-115-279741
; Sequence 279741, Application US/10425115
; Publication No. US20040214272A1
; GENERAL INFORMATION:
;  APPLICANT: La Rosa, Thomas J.
;  APPLICANT:  Kovalic, David K.
;  APPLICANT:  Zhou, Yihua
;  APPLICANT:  Cao, Yongwei
;  TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
;  TITLE OF INVENTION:  Plants
;  FILE REFERENCE: 38-21(53222)B
;  CURRENT APPLICATION NUMBER: US/10/425,115
;  CURRENT FILING DATE:  2003-04-28
;  NUMBER OF SEQ ID NOS: 369326
; SEQ ID NO 279741
;   LENGTH: 67
;   TYPE: PRT
;   ORGANISM: Zea mays
;   FEATURE:
;   OTHER INFORMATION: Clone ID: MRT4577_186704C.1.pep
US-10-425-115-279741

  Query Match             100.0%;  Score 25;  DB 16;  Length 67;
  Best Local Similarity   100.0%;  Pred. No. 3.9e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db          1 LRKED 5


RESULT 15
US-10-425-115-351426
; Sequence 351426, Application US/10425115
; Publication No. US20040214272A1
; GENERAL INFORMATION:
;  APPLICANT: La Rosa, Thomas J.
;  APPLICANT:  Kovalic, David K.
;  APPLICANT:  Zhou, Yihua
;  APPLICANT:  Cao, Yongwei
;  TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
;  TITLE OF INVENTION:  Plants
;  FILE REFERENCE: 38-21(53222)B
;  CURRENT APPLICATION NUMBER: US/10/425,115
;  CURRENT FILING DATE:  2003-04-28
;  NUMBER OF SEQ ID NOS: 369326
; SEQ ID NO 351426
;   LENGTH: 68
;   TYPE: PRT
;   ORGANISM: Zea mays
;   FEATURE:
;   NAME/KEY: unsure
;   LOCATION: (1)..(68)
;   OTHER INFORMATION: unsure at all Xaa locations
;   FEATURE:
;   OTHER INFORMATION: Clone ID: MRT4577_83666C.1.pep
US-10-425-115-351426

  Query Match             100.0%;  Score 25;  DB 16;  Length 68;
  Best Local Similarity   100.0%;  Pred. No. 3.9e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db         37 LRKED 41


RESULT 16
US-10-437-963-187058
; Sequence 187058, Application US/10437963
; Publication No. US20040123343A1
; GENERAL INFORMATION:
;  APPLICANT: La Rosa, Thomas J.
;  APPLICANT:  Kovalic, David K.
;  APPLICANT:  Zhou, Yihua
;  APPLICANT:  Cao, Yongwei
;  APPLICANT:  Wu, Wei
;  APPLICANT:  Boukharov, Andrey A.
;  APPLICANT:  Barbazuk, Brad
;  APPLICANT:  Li, Ping
;  TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With
;  TITLE OF INVENTION:  Plants and Uses Thereof for Plant Improvement
;  FILE REFERENCE: 38-21(53221)B
;  CURRENT APPLICATION NUMBER: US/10/437,963
;  CURRENT FILING DATE:  2003-05-14
;  NUMBER OF SEQ ID NOS: 204966
; SEQ ID NO 187058
;   LENGTH: 71
;   TYPE: PRT
;   ORGANISM: Oryza sativa
;   FEATURE:
;   OTHER INFORMATION: Clone ID: PAT_MRT4530_8379C.1.pep
US-10-437-963-187058

  Query Match             100.0%;  Score 25;  DB 16;  Length 71;
  Best Local Similarity   100.0%;  Pred. No. 4.1e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db         26 LRKED 30


RESULT 17
US-10-425-115-197639
; Sequence 197639, Application US/10425115
; Publication No. US20040214272A1
; GENERAL INFORMATION:
;  APPLICANT: La Rosa, Thomas J.
;  APPLICANT:  Kovalic, David K.
;  APPLICANT:  Zhou, Yihua
;  APPLICANT:  Cao, Yongwei
;  TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
;  TITLE OF INVENTION:  Plants
;  FILE REFERENCE: 38-21(53222)B
;  CURRENT APPLICATION NUMBER: US/10/425,115
;  CURRENT FILING DATE:  2003-04-28
;  NUMBER OF SEQ ID NOS: 369326
; SEQ ID NO 197639
;   LENGTH: 85
;   TYPE: PRT
;   ORGANISM: Zea mays
;   FEATURE:
;   OTHER INFORMATION: Clone ID: MRT4577_11182C.1.pep
US-10-425-115-197639
```

```
  Query Match             100.0%;  Score 25;  DB 16;  Length 85;
  Best Local Similarity   100.0%;  Pred. No. 4.9e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db         32 LRKED 36


RESULT 18
US-09-809-391-754
; Sequence 754, Application US/09809391
; Publication No. US20030049618A1
; GENERAL INFORMATION:
;  APPLICANT: Ruben et al.
;  TITLE OF INVENTION: 186 Human Secreted proteins
;  FILE REFERENCE: PZ002P2
;  CURRENT APPLICATION NUMBER: US/09/809,391
;  CURRENT FILING DATE:  2001-03-16
;  Prior application data removed - consult PALM or file wrapper
;  NUMBER OF SEQ ID NOS: 761
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 754
;   LENGTH: 101
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: SITE
;   LOCATION: (29)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
;   NAME/KEY: SITE
;   LOCATION: (30)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
;   NAME/KEY: SITE
;   LOCATION: (32)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-809-391-754

  Query Match             100.0%;  Score 25;  DB 10;  Length 101;
  Best Local Similarity   100.0%;  Pred. No. 5.9e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db         81 LRKED 85


RESULT 19
US-09-882-171-754
; Sequence 754, Application US/09882171
; Publication No. US20030175858A1
; GENERAL INFORMATION:
;  APPLICANT: Ruben et al.
;  TITLE OF INVENTION: 186 Human Secreted proteins
;  FILE REFERENCE: PZ002P2
;  CURRENT APPLICATION NUMBER: US/09/882,171
;  CURRENT FILING DATE:  2001-06-18
;  PRIOR APPLICATION NUMBER: 09/809,391
;  PRIOR FILING DATE: 2001-03-16
;  PRIOR APPLICATION NUMBER: 09/149,476
;  PRIOR FILING DATE: 1998-09-08
;  PRIOR APPLICATION NUMBER: PCT/US98/04493
;  PRIOR FILING DATE: 1998-03-06
;  PRIOR APPLICATION NUMBER: 60/040,162
;  PRIOR FILING DATE: 1997-03-07
;  PRIOR APPLICATION NUMBER: 60/040,333
;  PRIOR FILING DATE: 1997-03-07
;  PRIOR APPLICATION NUMBER: 60/038,621
;  PRIOR FILING DATE: 1997-03-07
;  PRIOR APPLICATION NUMBER: 60/040,626
;  PRIOR FILING DATE: 1997-03-07
;  PRIOR APPLICATION NUMBER: 60/040,334
;  PRIOR FILING DATE: 1997-03-07
;  PRIOR APPLICATION NUMBER: 60/040,336
;  PRIOR FILING DATE: 1997-03-07
;  PRIOR APPLICATION NUMBER: 60/040,163
;  PRIOR FILING DATE: 1997-03-07
;  PRIOR APPLICATION NUMBER: 60/047,600
;  PRIOR FILING DATE: 1997-05-23
;  PRIOR APPLICATION NUMBER: 60/047,615
;  PRIOR FILING DATE: 1997-05-23
;  PRIOR APPLICATION NUMBER: 60/047,597
;  PRIOR FILING DATE: 1997-05-23
;  PRIOR APPLICATION NUMBER: 60/047,502
;  PRIOR FILING DATE: 1997-05-23
;  PRIOR APPLICATION NUMBER: 60/047,633
;  PRIOR FILING DATE: 1997-05-23
;  PRIOR APPLICATION NUMBER: 60/047,583
;  PRIOR FILING DATE: 1997-05-23
;  PRIOR APPLICATION NUMBER: 60/047,617
;  PRIOR FILING DATE: 1997-05-23
;  PRIOR APPLICATION NUMBER: 60/047,618
;  PRIOR FILING DATE: 1997-05-23
;  PRIOR APPLICATION NUMBER: 60/047,503
;  PRIOR FILING DATE: 1997-05-23
;  PRIOR APPLICATION NUMBER: 60/047,592
;  PRIOR FILING DATE: 1997-05-23
;  PRIOR APPLICATION NUMBER: 60/047,581
;  PRIOR FILING DATE: 1997-05-23
;  PRIOR APPLICATION NUMBER: 60/047,584
;  PRIOR FILING DATE: 1997-05-23
;  PRIOR APPLICATION NUMBER: 60/047,500
;  PRIOR FILING DATE: 1997-05-23
;  PRIOR APPLICATION NUMBER: 60/047,587
;  PRIOR FILING DATE: 1997-05-23
;  PRIOR APPLICATION NUMBER: 60/047,492
;  PRIOR FILING DATE: 1997-05-23
;  PRIOR APPLICATION NUMBER: 60/047,598
;  PRIOR FILING DATE: 1997-05-23
;  PRIOR APPLICATION NUMBER: 60/047,613
;  PRIOR FILING DATE: 1997-05-23
;  PRIOR APPLICATION NUMBER: 60/047,582
;  PRIOR FILING DATE: 1997-05-23
;  PRIOR APPLICATION NUMBER: 60/047,596
;  PRIOR FILING DATE: 1997-05-23
;  PRIOR APPLICATION NUMBER: 60/047,612
;  PRIOR FILING DATE: 1997-05-23
;  PRIOR APPLICATION NUMBER: 60/047,632
;  PRIOR FILING DATE: 1997-05-23
;  PRIOR APPLICATION NUMBER: 60/047,601
;  PRIOR FILING DATE: 1997-05-23
;  PRIOR APPLICATION NUMBER: 60/043,580
;  PRIOR FILING DATE: 1997-04-11
;  PRIOR APPLICATION NUMBER: 60/043,568
;  PRIOR FILING DATE: 1997-04-11
;  PRIOR APPLICATION NUMBER: 60/043,314
;  PRIOR FILING DATE: 1997-04-11
;  PRIOR APPLICATION NUMBER: 60/043,569
;  PRIOR FILING DATE: 1997-04-11
;  PRIOR APPLICATION NUMBER: 60/043,311
;  PRIOR FILING DATE: 1997-04-11
;  PRIOR APPLICATION NUMBER: 60/043,671
;  PRIOR FILING DATE: 1997-04-11
;  PRIOR APPLICATION NUMBER: 60/043,674
;  PRIOR FILING DATE: 1997-04-11
;  PRIOR APPLICATION NUMBER: 60/043,669
;  PRIOR FILING DATE: 1997-04-11
;  PRIOR APPLICATION NUMBER: 60/043,312
;  PRIOR FILING DATE: 1997-04-11
;  PRIOR APPLICATION NUMBER: 60/043,313
;  PRIOR FILING DATE: 1997-04-11
;  PRIOR APPLICATION NUMBER: 60/043,672
;  PRIOR FILING DATE: 1997-04-11
;  PRIOR APPLICATION NUMBER: 60/043,315
;  PRIOR FILING DATE: 1997-04-11
```

; PRIOR APPLICATION NUMBER: 60/048,974
; PRIOR FILING DATE: 1997-06-06
; PRIOR APPLICATION NUMBER: 60/056,886
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,877
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,889
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,893
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,630
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,878
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,662
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,872
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,882
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,637
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,903
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,888
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,879
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,880
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,894
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,911
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,636
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,874
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,910
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,864
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,631
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,845
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,892
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/057,761
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/047,595
; PRIOR FILING DATE: 1997-05-23
; PRIOR APPLICATION NUMBER: 60/047,599
; PRIOR FILING DATE: 1997-05-23
; PRIOR APPLICATION NUMBER: 60/047,588
; PRIOR FILING DATE: 1997-05-23
; PRIOR APPLICATION NUMBER: 60/047,585
; PRIOR FILING DATE: 1997-05-23
; PRIOR APPLICATION NUMBER: 60/047,586
; PRIOR FILING DATE: 1997-05-23
; PRIOR APPLICATION NUMBER: 60/047,590
; PRIOR FILING DATE: 1997-05-23
; PRIOR APPLICATION NUMBER: 60/047,594
; PRIOR FILING DATE: 1997-05-23
; PRIOR APPLICATION NUMBER: 60/047,589
; PRIOR FILING DATE: 1997-05-23
; PRIOR APPLICATION NUMBER: 60/047,593
; PRIOR FILING DATE: 1997-05-23
; PRIOR APPLICATION NUMBER: 60/047,614
; PRIOR FILING DATE: 1997-05-23
; PRIOR APPLICATION NUMBER: 60/043,578
; PRIOR FILING DATE: 1997-04-11
; PRIOR APPLICATION NUMBER: 60/043,576
; PRIOR FILING DATE: 1997-04-11
; PRIOR APPLICATION NUMBER: 60/047,501
; PRIOR FILING DATE: 1997-05-23
; PRIOR APPLICATION NUMBER: 60/043,670
; PRIOR FILING DATE: 1997-04-11
; PRIOR APPLICATION NUMBER: 60/056,632
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,664
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,876
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,881
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,909
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,875
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,862
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,887
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/056,908
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/048,964
; PRIOR FILING DATE: 1997-06-06
; PRIOR APPLICATION NUMBER: 60/057,650
; PRIOR FILING DATE: 1997-09-05
; PRIOR APPLICATION NUMBER: 60/056,884
; PRIOR FILING DATE: 1997-08-22
; PRIOR APPLICATION NUMBER: 60/057,669
; PRIOR FILING DATE: 1997-09-05

Query Match 100.0%; Score 25; DB 10; Length 101;
Best Local Similarity 100.0%; Pred. No. 5.9e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 LRKED 5
              |||||
Db         81 LRKED 85
```

RESULT 20
US-10-164-861-754
; Sequence 754, Application US/10164861
; Publication No. US20030225248A1
; GENERAL INFORMATION:
; APPLICANT: Rosen et al.
; TITLE OF INVENTION: 186 Human Secreted proteins
; FILE REFERENCE: PZ002P1
; CURRENT APPLICATION NUMBER: US/10/164,861
; CURRENT FILING DATE: 2002-06-10
; PRIOR APPLICATION NUMBER: US/09/149,476
; PRIOR FILING DATE: 1998-09-08
; PRIOR APPLICATION NUMBER: PCT/US98/04493
; PRIOR FILING DATE: 1998-03-06
; NUMBER OF SEQ ID NOS: 757
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 754
; LENGTH: 101
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (29)
; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (30)
; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (32)
; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids

US-10-164-861-754

Query Match 100.0%; Score 25; DB 15; Length 101;
Best Local Similarity 100.0%; Pred. No. 5.9e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LRKED 5
||||||
Db 81 LRKED 85

RESULT 21
US-10-450-763-32041
; Sequence 32041, Application US/10450763
; Publication No. US20050196754A1
; GENERAL INFORMATION:
; APPLICANT: Hyseq, Inc
; TITLE OF INVENTION: NOVEL NUCLEIC ACIDS AND POLYPEPTIDES
; FILE REFERENCE: 790CIP3/US
; CURRENT APPLICATION NUMBER: US/10/450,763
; CURRENT FILING DATE: 2003-06-11
; PRIOR APPLICATION NUMBER: PCT/US01/08631
; PRIOR FILING DATE: 2001-03-30
; PRIOR APPLICATION NUMBER: 09/540,217
; PRIOR FILING DATE: 2000-03-31
; PRIOR APPLICATION NUMBER: 09/649,167
; PRIOR FILING DATE: 2000-08-23
; NUMBER OF SEQ ID NOS: 60736
; SOFTWARE: Custom
; SEQ ID NO 32041
; LENGTH: 103
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: DOMAIN
; LOCATION: (24)..(100)
; OTHER INFORMATION: Immunoglobulin domain identified by PFam, accession name ig,
; OTHER INFORMATION: E-value=5.4e-08, PFam score of 30.8
US-10-450-763-32041

Query Match 100.0%; Score 25; DB 18; Length 103;
Best Local Similarity 100.0%; Pred. No. 6e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LRKED 5
||||||
Db 88 LRKED 92

RESULT 22
US-09-764-853-745
; Sequence 745, Application US/09764853
; Patent No. US20020090672A1
; GENERAL INFORMATION:
; APPLICANT: Rosen et al.
; TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
; FILE REFERENCE: PJZ06
; CURRENT APPLICATION NUMBER: US/09/764,853
; CURRENT FILING DATE: 2001-01-17
; Prior application data removed - consult PALM or file wrapper
; NUMBER OF SEQ ID NOS: 939
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 745
; LENGTH: 105
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (12)
; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
; NAME/KEY: SITE
; LOCATION: (102)
; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
; NAME/KEY: SITE
; LOCATION: (103)
; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-764-853-745

Query Match 100.0%; Score 25; DB 9; Length 105;
Best Local Similarity 100.0%; Pred. No. 6.1e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LRKED 5
||||||
Db 31 LRKED 35

RESULT 23
US-10-091-438-228
; Sequence 228, Application US/10091438
; Publication No. US20030077606A1
; GENERAL INFORMATION:
; APPLICANT: Rosen et al.
; TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
; FILE REFERENCE: PTZ17C1
; CURRENT APPLICATION NUMBER: US/10/091,438
; CURRENT FILING DATE: 2001-01-17
; PRIOR APPLICATION NUMBER: 09/764,879
; PRIOR FILING DATE: 2001-01-17
; PRIOR APPLICATION NUMBER: 60/179,065
; PRIOR FILING DATE: 2000-01-31
; PRIOR APPLICATION NUMBER: 60/180,628
; PRIOR FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: 60/214,886
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/217,487
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: 60/225,758
; PRIOR FILING DATE: 2000-08-14
; PRIOR APPLICATION NUMBER: 60/220,963
; PRIOR FILING DATE: 2000-07-26
; PRIOR APPLICATION NUMBER: 60/217,496
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: 60/225,447
; PRIOR FILING DATE: 2000-08-14
; PRIOR APPLICATION NUMBER: 60/218,290
; PRIOR FILING DATE: 2000-07-14
; PRIOR APPLICATION NUMBER: 60/225,757
; PRIOR FILING DATE: 2000-08-14
; PRIOR APPLICATION NUMBER: 60/226,868
; PRIOR FILING DATE: 2000-08-22
; PRIOR APPLICATION NUMBER: 60/216,647
; PRIOR FILING DATE: 2000-07-07
; PRIOR APPLICATION NUMBER: 60/225,267
; PRIOR FILING DATE: 2000-08-14
; PRIOR APPLICATION NUMBER: 60/216,880
; PRIOR FILING DATE: 2000-07-07
; PRIOR APPLICATION NUMBER: 60/225,270
; PRIOR FILING DATE: 2000-08-14
; PRIOR APPLICATION NUMBER: 60/251,869
; PRIOR FILING DATE: 2000-12-08
; PRIOR APPLICATION NUMBER: 60/235,834
; PRIOR FILING DATE: 2000-09-27
; PRIOR APPLICATION NUMBER: 60/234,274
; PRIOR FILING DATE: 2000-09-21
; PRIOR APPLICATION NUMBER: 60/234,223
; PRIOR FILING DATE: 2000-09-21
; PRIOR APPLICATION NUMBER: 60/228,924
; PRIOR FILING DATE: 2000-08-30
; PRIOR APPLICATION NUMBER: 60/224,518
; PRIOR FILING DATE: 2000-08-14
; PRIOR APPLICATION NUMBER: 60/236,369
; PRIOR FILING DATE: 2000-09-29
; PRIOR APPLICATION NUMBER: 60/224,519
; PRIOR FILING DATE: 2000-08-14
; PRIOR APPLICATION NUMBER: 60/220,964

; PRIOR FILING DATE: 2000-07-26
; PRIOR APPLICATION NUMBER: 60/241,809
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/249,299
; PRIOR FILING DATE: 2000-11-17
; PRIOR APPLICATION NUMBER: 60/236,327
; PRIOR FILING DATE: 2000-09-29
; PRIOR APPLICATION NUMBER: 60/241,785
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/244,617
; PRIOR FILING DATE: 2000-11-01
; PRIOR APPLICATION NUMBER: 60/225,268
; PRIOR FILING DATE: 2000-08-14
; PRIOR APPLICATION NUMBER: 60/236,368
; PRIOR FILING DATE: 2000-09-29
; PRIOR APPLICATION NUMBER: 60/251,856
; PRIOR FILING DATE: 2000-12-08
; PRIOR APPLICATION NUMBER: 60/251,868
; PRIOR FILING DATE: 2000-12-08
; PRIOR APPLICATION NUMBER: 60/229,344
; PRIOR FILING DATE: 2000-09-01
; PRIOR APPLICATION NUMBER: 60/234,997
; PRIOR FILING DATE: 2000-09-25
; PRIOR APPLICATION NUMBER: 60/229,343
; PRIOR FILING DATE: 2000-09-01
; PRIOR APPLICATION NUMBER: 60/229,345
; PRIOR FILING DATE: 2000-09-01
; PRIOR APPLICATION NUMBER: 60/229,287
; PRIOR FILING DATE: 2000-09-01
; PRIOR APPLICATION NUMBER: 60/229,513
; PRIOR FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: 60/231,413
; PRIOR FILING DATE: 2000-09-08
; PRIOR APPLICATION NUMBER: 60/229,509
; PRIOR FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: 60/236,367
; PRIOR FILING DATE: 2000-09-29
; PRIOR APPLICATION NUMBER: 60/237,039
; PRIOR FILING DATE: 2000-10-02
; PRIOR APPLICATION NUMBER: 60/237,038
; PRIOR FILING DATE: 2000-10-02
; PRIOR APPLICATION NUMBER: 60/236,370
; PRIOR FILING DATE: 2000-09-29
; PRIOR APPLICATION NUMBER: 60/236,802
; PRIOR FILING DATE: 2000-10-02
; PRIOR APPLICATION NUMBER: 60/237,037
; PRIOR FILING DATE: 2000-10-02
; PRIOR APPLICATION NUMBER: 60/237,040
; PRIOR FILING DATE: 2000-10-02
; PRIOR APPLICATION NUMBER: 60/240,960
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/239,935
; PRIOR FILING DATE: 2000-10-13
; PRIOR APPLICATION NUMBER: 60/239,937
; PRIOR FILING DATE: 2000-10-13
; PRIOR APPLICATION NUMBER: 60/241,787
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/246,474
; PRIOR FILING DATE: 2000-11-08
; PRIOR APPLICATION NUMBER: 60/246,532
; PRIOR FILING DATE: 2000-11-08
; PRIOR APPLICATION NUMBER: 60/249,216
; PRIOR FILING DATE: 2000-11-17
; PRIOR APPLICATION NUMBER: 60/249,210
; PRIOR FILING DATE: 2000-11-17
; PRIOR APPLICATION NUMBER: 60/226,681
; PRIOR FILING DATE: 2000-08-22
; PRIOR APPLICATION NUMBER: 60/225,759
; PRIOR FILING DATE: 2000-08-14
; PRIOR APPLICATION NUMBER: 60/225,213
; PRIOR FILING DATE: 2000-08-14
; PRIOR APPLICATION NUMBER: 60/227,182
; PRIOR FILING DATE: 2000-08-22
; PRIOR APPLICATION NUMBER: 60/225,214
; PRIOR FILING DATE: 2000-08-14
; PRIOR APPLICATION NUMBER: 60/235,836
; PRIOR FILING DATE: 2000-09-27
; PRIOR APPLICATION NUMBER: 60/230,438
; PRIOR FILING DATE: 2000-09-06
; PRIOR APPLICATION NUMBER: 60/215,135
; PRIOR FILING DATE: 2000-06-30
; PRIOR APPLICATION NUMBER: 60/225,266
; PRIOR FILING DATE: 2000-08-14
; PRIOR APPLICATION NUMBER: 60/249,218
; PRIOR FILING DATE: 2000-11-17
; PRIOR APPLICATION NUMBER: 60/249,208
; PRIOR FILING DATE: 2000-11-17
; PRIOR APPLICATION NUMBER: 60/249,213
; PRIOR FILING DATE: 2000-11-17
; PRIOR APPLICATION NUMBER: 60/249,212
; PRIOR FILING DATE: 2000-11-17
; PRIOR APPLICATION NUMBER: 60/249,207
; PRIOR FILING DATE: 2000-11-17
; PRIOR APPLICATION NUMBER: 60/249,245
; PRIOR FILING DATE: 2000-11-17
; PRIOR APPLICATION NUMBER: 60/249,244
; PRIOR FILING DATE: 2000-11-17
; PRIOR APPLICATION NUMBER: 60/249,217
; PRIOR FILING DATE: 2000-11-17
; PRIOR APPLICATION NUMBER: 60/249,211
; PRIOR FILING DATE: 2000-11-17
; PRIOR APPLICATION NUMBER: 60/249,215
; PRIOR FILING DATE: 2000-11-17
; PRIOR APPLICATION NUMBER: 60/249,264
; PRIOR FILING DATE: 2000-11-17
; PRIOR APPLICATION NUMBER: 60/249,214
; PRIOR FILING DATE: 2000-11-17
; PRIOR APPLICATION NUMBER: 60/249,297
; PRIOR FILING DATE: 2000-11-17
; PRIOR APPLICATION NUMBER: 60/232,400
; PRIOR FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: 60/231,242
; PRIOR FILING DATE: 2000-09-08
; PRIOR APPLICATION NUMBER: 60/232,081
; PRIOR FILING DATE: 2000-09-08
; PRIOR APPLICATION NUMBER: 60/232,080
; PRIOR FILING DATE: 2000-09-08
; PRIOR APPLICATION NUMBER: 60/231,414
; PRIOR FILING DATE: 2000-09-08
; PRIOR APPLICATION NUMBER: 60/231,244
; PRIOR FILING DATE: 2000-09-08
; PRIOR APPLICATION NUMBER: 60/233,064
; PRIOR FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: 60/233,063
; PRIOR FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: 60/232,397
; PRIOR FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: 60/232,399
; PRIOR FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: 60/232,401
; PRIOR FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: 60/241,808
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/241,826
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/241,786
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/241,221
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/246,475
; PRIOR FILING DATE: 2000-11-08
; PRIOR APPLICATION NUMBER: 60/231,243
; PRIOR FILING DATE: 2000-09-08

Query Match 100.0%; Score 25; DB 14; Length 105;
Best Local Similarity 100.0%; Pred. No. 6.1e+02;

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  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db         31 LRKED 35


RESULT 24
US-10-424-599-183399
; Sequence 183399, Application US/10424599
; Publication No. US20040031072A1
; GENERAL INFORMATION:
;  APPLICANT: La Rosa Thomas J
;  APPLICANT:  Kovalic David K
;  APPLICANT:  Zhou Yihua
;  APPLICANT:  Cao Yongwei
;  TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
;  TITLE OF INVENTION:  Plants and Uses Thereof for Plant Improvement
;  FILE REFERENCE: 38-21(53223)B
;  CURRENT APPLICATION NUMBER: US/10/424,599
;  CURRENT FILING DATE:  2003-04-28
;  NUMBER OF SEQ ID NOS: 285684
; SEQ ID NO 183399
;   LENGTH: 119
;   TYPE: PRT
;   ORGANISM: Glycine max
;   FEATURE:
;   OTHER INFORMATION: Clone ID: PAT_MRT3847_136622C.1.pep
US-10-424-599-183399

  Query Match             100.0%;  Score 25;  DB 15;  Length 119;
  Best Local Similarity   100.0%;  Pred. No. 6.9e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db          5 LRKED 9


RESULT 25
US-10-424-599-238806
; Sequence 238806, Application US/10424599
; Publication No. US20040031072A1
; GENERAL INFORMATION:
;  APPLICANT: La Rosa Thomas J
;  APPLICANT:  Kovalic David K
;  APPLICANT:  Zhou Yihua
;  APPLICANT:  Cao Yongwei
;  TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
;  TITLE OF INVENTION:  Plants and Uses Thereof for Plant Improvement
;  FILE REFERENCE: 38-21(53223)B
;  CURRENT APPLICATION NUMBER: US/10/424,599
;  CURRENT FILING DATE:  2003-04-28
;  NUMBER OF SEQ ID NOS: 285684
; SEQ ID NO 238806
;   LENGTH: 120
;   TYPE: PRT
;   ORGANISM: Glycine max
;   FEATURE:
;   OTHER INFORMATION: Clone ID: PAT_MRT3847_57667C.1.pep
US-10-424-599-238806

  Query Match             100.0%;  Score 25;  DB 15;  Length 120;
  Best Local Similarity   100.0%;  Pred. No. 7e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db         30 LRKED 34


RESULT 26
US-10-425-115-271038
; Sequence 271038, Application US/10425115
; Publication No. US20040214272A1
; GENERAL INFORMATION:
;  APPLICANT: La Rosa, Thomas J.
;  APPLICANT:  Kovalic, David K.
;  APPLICANT:  Zhou, Yihua
;  APPLICANT:  Cao, Yongwei
;  TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
;  TITLE OF INVENTION:  Plants
;  FILE REFERENCE: 38-21(53222)B
;  CURRENT APPLICATION NUMBER: US/10/425,115
;  CURRENT FILING DATE:  2003-04-28
;  NUMBER OF SEQ ID NOS: 369326
; SEQ ID NO 271038
;   LENGTH: 135
;   TYPE: PRT
;   ORGANISM: Zea mays
;   FEATURE:
;   NAME/KEY: unsure
;   LOCATION: (1)..(135)
;   OTHER INFORMATION: unsure at all Xaa locations
;   FEATURE:
;   OTHER INFORMATION: Clone ID: MRT4577_178783C.1.pep
US-10-425-115-271038

  Query Match             100.0%;  Score 25;  DB 16;  Length 135;
  Best Local Similarity   100.0%;  Pred. No. 7.9e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db        117 LRKED 121


RESULT 27
US-10-425-115-205883
; Sequence 205883, Application US/10425115
; Publication No. US20040214272A1
; GENERAL INFORMATION:
;  APPLICANT: La Rosa, Thomas J.
;  APPLICANT:  Kovalic, David K.
;  APPLICANT:  Zhou, Yihua
;  APPLICANT:  Cao, Yongwei
;  TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
;  TITLE OF INVENTION:  Plants
;  FILE REFERENCE: 38-21(53222)B
;  CURRENT APPLICATION NUMBER: US/10/425,115
;  CURRENT FILING DATE:  2003-04-28
;  NUMBER OF SEQ ID NOS: 369326
; SEQ ID NO 205883
;   LENGTH: 142
;   TYPE: PRT
;   ORGANISM: Zea mays
;   FEATURE:
;   OTHER INFORMATION: Clone ID: MRT4577_119349C.1.pep
US-10-425-115-205883

  Query Match             100.0%;  Score 25;  DB 16;  Length 142;
  Best Local Similarity   100.0%;  Pred. No. 8.3e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db         81 LRKED 85


RESULT 28
US-10-424-599-242813
; Sequence 242813, Application US/10424599
; Publication No. US20040031072A1
; GENERAL INFORMATION:
;  APPLICANT: La Rosa Thomas J
;  APPLICANT:  Kovalic David K
```

```
;  APPLICANT:  Zhou Yihua
;  APPLICANT:  Cao Yongwei
;  TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
;  TITLE OF INVENTION:  Plants and Uses Thereof for Plant Improvement
;  FILE REFERENCE: 38-21(53223)B
;  CURRENT APPLICATION NUMBER: US/10/424,599
;  CURRENT FILING DATE:  2003-04-28
;  NUMBER OF SEQ ID NOS: 285684
; SEQ ID NO 242813
;   LENGTH: 148
;   TYPE: PRT
;   ORGANISM: Glycine max
;   FEATURE:
;   OTHER INFORMATION: Clone ID: PAT_MRT3847_6128C.1.pep
US-10-424-599-242813

  Query Match             100.0%;  Score 25;  DB 15;  Length 148;
  Best Local Similarity   100.0%;  Pred. No. 8.7e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db         28 LRKED 32


RESULT 29
US-10-243-552-935
; Sequence 935, Application US/10243552
; Publication No. US20030224379A1
; GENERAL INFORMATION:
;  APPLICANT: Tang, Y. Tom
;  APPLICANT:  Yang, Yonghong
;  APPLICANT:  Wang, Zhiwei
;  APPLICANT:  Weng, Gezhi
;  APPLICANT:  Ma, Yunqing
;  TITLE OF INVENTION: Novel Nucleic Acids and
;  TITLE OF INVENTION:  Polypeptides
;  FILE REFERENCE: 807A
;  CURRENT APPLICATION NUMBER: US/10/243,552
;  CURRENT FILING DATE:  2002-09-12
;  PRIOR APPLICATION NUMBER: US 60/322,511
;  PRIOR FILING DATE: 2001-09-13
;  PRIOR APPLICATION NUMBER: PCT/US00/35017
;  PRIOR FILING DATE: 2000-12-22
;  PRIOR APPLICATION NUMBER: US 09/488,725
;  PRIOR FILING DATE: 2000-01-21
;  PRIOR APPLICATION NUMBER: US 09/552,317
;  PRIOR FILING DATE: 2000-04-25
;  PRIOR APPLICATION NUMBER: PCT/US01/02623
;  PRIOR FILING DATE: 2001-01-25
;  PRIOR APPLICATION NUMBER: US 09/491,404
;  PRIOR FILING DATE: 2000-01-25
;  PRIOR APPLICATION NUMBER: PCT/US01/03800
;  PRIOR FILING DATE: 2001-02-05
;  PRIOR APPLICATION NUMBER: US 09/496,914
;  PRIOR FILING DATE: 2000-02-03
;  PRIOR APPLICATION NUMBER: US 09/560,875
;  PRIOR FILING DATE: 2000-04-27
;  PRIOR APPLICATION NUMBER: PCT/US01/04927
;  PRIOR FILING DATE: 2001-02-26
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 998
;  SOFTWARE: pt_FL_genes Version 5.0
; SEQ ID NO 935
;   LENGTH: 153
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-243-552-935

  Query Match             100.0%;  Score 25;  DB 15;  Length 153;
  Best Local Similarity   100.0%;  Pred. No. 9e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db         85 LRKED 89


RESULT 30
US-10-101-464A-705
; Sequence 705, Application US/10101464A
; Publication No. US20030046728A1
; GENERAL INFORMATION:
;  APPLICANT: Strabala, Timothy
;  APPLICANT:  Nieuwenhuizen, Nicolaas
;  APPLICANT:  Higgins, Colleen M.
;  TITLE OF INVENTION: Compositions Isolated from Plant Cells
;  TITLE OF INVENTION:  and Their Use in the Modification of Plant Cell Signaling
;  FILE REFERENCE: 11000.1020c2
;  CURRENT APPLICATION NUMBER: US/10/101,464A
;  CURRENT FILING DATE:  2002-03-18
;  PRIOR APPLICATION NUMBER: 09/704,302
;  PRIOR FILING DATE: 2000-11-01
;  PRIOR APPLICATION NUMBER: 09/228,986
;  PRIOR FILING DATE: 1999-01-12
;  PRIOR APPLICATION NUMBER: 60/162,866
;  PRIOR FILING DATE: 1999-11-01
;  PRIOR APPLICATION NUMBER: PCT/US00/00724
;  PRIOR FILING DATE: 2000-01-11
;  NUMBER OF SEQ ID NOS: 989
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 705
;   LENGTH: 158
;   TYPE: PRT
;   ORGANISM: Pinus radiata
US-10-101-464A-705

  Query Match             100.0%;  Score 25;  DB 14;  Length 158;
  Best Local Similarity   100.0%;  Pred. No. 9.2e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db        120 LRKED 124


RESULT 31
US-10-864-252-705
; Sequence 705, Application US/10864252
; Publication No. US20050050583A1
; GENERAL INFORMATION:
;  APPLICANT: Strabala, Timothy
;  APPLICANT:  Nieuwenhuizen, Nicolaas
;  APPLICANT:  Higgins, Colleen M.
;  TITLE OF INVENTION: Compositions Isolated from Plant Cells
;  TITLE OF INVENTION:  and Their Use in the Modification of Plant Cell Signaling
;  FILE REFERENCE: 11000.1020c3
;  CURRENT APPLICATION NUMBER: US/10/864,252
;  CURRENT FILING DATE:  2004-06-09
;  PRIOR APPLICATION NUMBER: 10/101,464
;  PRIOR FILING DATE: 2002-03-18
;  PRIOR APPLICATION NUMBER: 09/704,302
;  PRIOR FILING DATE: 2000-11-01
;  PRIOR APPLICATION NUMBER: 09/228,986
;  PRIOR FILING DATE: 1999-01-12
;  PRIOR APPLICATION NUMBER: 60/162,866
;  PRIOR FILING DATE: 1999-11-01
;  PRIOR APPLICATION NUMBER: PCT/US00/00724
;  PRIOR FILING DATE: 2000-01-11
;  NUMBER OF SEQ ID NOS: 989
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 705
;   LENGTH: 158
;   TYPE: PRT
;   ORGANISM: Pinus radiata
US-10-864-252-705
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Query Match 100.0%; Score 25; DB 17; Length 158;
Best Local Similarity 100.0%; Pred. No. 9.2e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 LRKED 5
              |||||
Db        120 LRKED 124
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RESULT 32
US-10-425-115-228109
; Sequence 228109, Application US/10425115
; Publication No. US20040214272A1
; GENERAL INFORMATION:
; APPLICANT: La Rosa, Thomas J.
; APPLICANT: Kovalic, David K.
; APPLICANT: Zhou, Yihua
; APPLICANT: Cao, Yongwei
; TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
; TITLE OF INVENTION: Plants
; FILE REFERENCE: 38-21(53222)B
; CURRENT APPLICATION NUMBER: US/10/425,115
; CURRENT FILING DATE: 2003-04-28
; NUMBER OF SEQ ID NOS: 369326
; SEQ ID NO 228109
; LENGTH: 175
; TYPE: PRT
; ORGANISM: Zea mays
; FEATURE:
; OTHER INFORMATION: Clone ID: MRT4577_13962C.1.pep
US-10-425-115-228109

Query Match 100.0%; Score 25; DB 16; Length 175;
Best Local Similarity 100.0%; Pred. No. 1e+03;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 LRKED 5
              |||||
Db        106 LRKED 110
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RESULT 33
US-10-450-763-51609
; Sequence 51609, Application US/10450763
; Publication No. US20050196754A1
; GENERAL INFORMATION:
; APPLICANT: Hyseq, Inc
; TITLE OF INVENTION: NOVEL NUCLEIC ACIDS AND POLYPEPTIDES
; FILE REFERENCE: 790CIP3/US
; CURRENT APPLICATION NUMBER: US/10/450,763
; CURRENT FILING DATE: 2003-06-11
; PRIOR APPLICATION NUMBER: PCT/US01/08631
; PRIOR FILING DATE: 2001-03-30
; PRIOR APPLICATION NUMBER: 09/540,217
; PRIOR FILING DATE: 2000-03-31
; PRIOR APPLICATION NUMBER: 09/649,167
; PRIOR FILING DATE: 2000-08-23
; NUMBER OF SEQ ID NOS: 60736
; SOFTWARE: Custom
; SEQ ID NO 51609
; LENGTH: 176
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-450-763-51609

Query Match 100.0%; Score 25; DB 18; Length 176;
Best Local Similarity 100.0%; Pred. No. 1e+03;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 LRKED 5
              |||||
Db        161 LRKED 165
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RESULT 34
US-10-437-963-131763
; Sequence 131763, Application US/10437963
; Publication No. US20040123343A1
; GENERAL INFORMATION:
; APPLICANT: La Rosa, Thomas J.
; APPLICANT: Kovalic, David K.
; APPLICANT: Zhou, Yihua
; APPLICANT: Cao, Yongwei
; APPLICANT: Wu, Wei
; APPLICANT: Boukharov, Andrey A.
; APPLICANT: Barbazuk, Brad
; APPLICANT: Li, Ping
; TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With
; TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
; FILE REFERENCE: 38-21(53221)B
; CURRENT APPLICATION NUMBER: US/10/437,963
; CURRENT FILING DATE: 2003-05-14
; NUMBER OF SEQ ID NOS: 204966
; SEQ ID NO 131763
; LENGTH: 183
; TYPE: PRT
; ORGANISM: Oryza sativa
; FEATURE:
; OTHER INFORMATION: Clone ID: PAT_MRT4530_33799C.1.pep
US-10-437-963-131763

Query Match 100.0%; Score 25; DB 16; Length 183;
Best Local Similarity 100.0%; Pred. No. 1.1e+03;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 LRKED 5
              |||||
Db        107 LRKED 111
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RESULT 35
US-10-108-605-167
; Sequence 167, Application US/10108605
; Publication No. US20020160934A1
; GENERAL INFORMATION:
; APPLICANT: Broadus, Julie
; APPLICANT: Stam, Lynn
; APPLICANT: Bachmann, Jane
; APPLICANT: Kamdar, Kim
; TITLE OF INVENTION: NUCLEIC ACID SEQUENCES FROM DROSOPHILA MELANOGASTER THAT ENCODE
; TITLE OF INVENTION: PROTEINS ESSENTIAL FOR LARVAL VIABILITY AND USES THEREOF
; FILE REFERENCE: 31133B
; CURRENT APPLICATION NUMBER: US/10/108,605
; CURRENT FILING DATE: 2002-03-27
; PRIOR APPLICATION NUMBER: US 09/761,142
; PRIOR FILING DATE: 2001-01-16
; PRIOR APPLICATION NUMBER: US 60/176,418
; PRIOR FILING DATE: 2000-01-14
; NUMBER OF SEQ ID NOS: 361
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 167
; LENGTH: 190
; TYPE: PRT
; ORGANISM: Drosophila melanogaster
US-10-108-605-167

Query Match 100.0%; Score 25; DB 13; Length 190;
Best Local Similarity 100.0%; Pred. No. 1.1e+03;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 LRKED 5
              |||||
Db         85 LRKED 89
```

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RESULT 36
US-10-732-923-17045
; Sequence 17045, Application US/10732923
; Publication No. US20050108791A1
; GENERAL INFORMATION:
;  APPLICANT: Edgerton, Michael D
;  TITLE OF INVENTION: TRANSGENIC PLANTS WITH IMPROVED PHENOTYPES
;  FILE REFERENCE: 38-15(52796)C
;  CURRENT APPLICATION NUMBER: US/10/732,923
;  CURRENT FILING DATE:  2003-12-10
;  PRIOR APPLICATION NUMBER: 10/310,154
;  PRIOR FILING DATE: 2002-12-04
;  NUMBER OF SEQ ID NOS: 24149
; SEQ ID NO 17045
;   LENGTH: 204
;   TYPE: PRT
;   ORGANISM: Drosophila melanogaster
US-10-732-923-17045

  Query Match             100.0%;  Score 25;  DB 17;  Length 204;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+03;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db        107 LRKED 111


RESULT 37
US-10-437-963-143176
; Sequence 143176, Application US/10437963
; Publication No. US20040123343A1
; GENERAL INFORMATION:
;  APPLICANT: La Rosa, Thomas J.
;  APPLICANT:  Kovalic, David K.
;  APPLICANT:  Zhou, Yihua
;  APPLICANT:  Cao, Yongwei
;  APPLICANT:  Wu, Wei
;  APPLICANT:  Boukharov, Andrey A.
;  APPLICANT:  Barbazuk, Brad
;  APPLICANT:  Li, Ping
;  TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With
;  TITLE OF INVENTION:  Plants and Uses Thereof for Plant Improvement
;  FILE REFERENCE: 38-21(53221)B
;  CURRENT APPLICATION NUMBER: US/10/437,963
;  CURRENT FILING DATE:  2003-05-14
;  NUMBER OF SEQ ID NOS: 204966
; SEQ ID NO 143176
;   LENGTH: 222
;   TYPE: PRT
;   ORGANISM: Oryza sativa
;   FEATURE:
;   OTHER INFORMATION: Clone ID: PAT_MRT4530_4410C.1.pep
US-10-437-963-143176

  Query Match             100.0%;  Score 25;  DB 16;  Length 222;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+03;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db        215 LRKED 219


RESULT 38
US-09-745-763-106
; Sequence 106, Application US/09745763
; Patent No. US20020065394A1
;   GENERAL INFORMATION:
;        APPLICANT: Jacobs, Kenneth
;                   McCoy, John M.
;                   LaVallie, Edward R.
;                   Collins-Racie, Lisa A.
;                   Evans, Cheryl
;                   Merberg, David
;                   Treacy, Maurice
;                   Spaulding, Vikki
;        TITLE OF INVENTION: SECRETED PROTEINS AND POLYNUCLEOTIDES
;                            ENCODING THEM
;        NUMBER OF SEQUENCES: 219
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Genetics Institute, Inc.
;             STREET: 87 CambridgePark Drive
;             CITY: Cambridge
;             STATE: MA
;             COUNTRY: U.S.A.
;             ZIP: 02140
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/745,763
;             FILING DATE: 18-Jun-2000
;             CLASSIFICATION: <Unknown>
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Sprunger, Suzanne A.
;             REGISTRATION NUMBER: 41,323
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (617) 498-8284
;             TELEFAX: (617) 876-5851
;   INFORMATION FOR SEQ ID NO: 106:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 226 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: <Unknown>
;             TOPOLOGY: linear
;        MOLECULE TYPE: protein
;        SEQUENCE DESCRIPTION: SEQ ID NO: 106:
US-09-745-763-106

  Query Match             100.0%;  Score 25;  DB 9;  Length 226;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+03;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db        115 LRKED 119


RESULT 39
US-09-774-381-44
; Sequence 44, Application US/09774381
; Publication No. US20030082677A1
; GENERAL INFORMATION:
;  APPLICANT:  Holtzman, Douglas A.
;  APPLICANT:  McCarthy, Sean A.
;  APPLICANT:  Pan, Yang
;  APPLICANT:  Gearing, David P.
;  TITLE OF INVENTION:  NOVEL EDIRF, MTR-1, LSP-1, TAP-1, AND PA-I MOLECULES
;  TITLE OF INVENTION:  AND USES THEREFOR
;  FILE REFERENCE:  MNI-107CP2
;  CURRENT APPLICATION NUMBER: US/09/774,381
;  CURRENT FILING DATE:  2001-01-30
;  PRIOR APPLICATION NUMBER:  08/941,354
;  PRIOR FILING DATE:  1999-09-30
;  PRIOR APPLICATION NUMBER:  09/010,674
;  PRIOR FILING DATE:  1998-01-22
;  PRIOR APPLICATION NUMBER:  60/061,149
;  PRIOR FILING DATE:  1997-10-06
;  PRIOR APPLICATION NUMBER:  09/014,347
;  PRIOR FILING DATE:  1998-01-27
;  PRIOR APPLICATION NUMBER:  60/061,159
;  PRIOR FILING DATE:  1997-10-06
;  PRIOR APPLICATION NUMBER:  09/474,151
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;  PRIOR FILING DATE:  2000-12-21
;  PRIOR APPLICATION NUMBER:  09/004,206
;  PRIOR FILING DATE:  1998-01-08
;  PRIOR APPLICATION NUMBER:  60/061,143
;  PRIOR FILING DATE:  1997-10-06
;  PRIOR APPLICATION NUMBER:  09/483,414
;  PRIOR FILING DATE:  2000-01-14
;  PRIOR APPLICATION NUMBER:  09/213,571
;  PRIOR FILING DATE:  1998-12-18
;  PRIOR APPLICATION NUMBER:  08/994,890
;  PRIOR FILING DATE:  1997-12-19
;  NUMBER OF SEQ ID NOS:  59
;  SOFTWARE:  PatentIn Ver. 2.0
; SEQ ID NO 44
;   LENGTH: 226
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-774-381-44

  Query Match             100.0%;  Score 25;  DB 10;  Length 226;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+03;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db        115 LRKED 119


RESULT 40
US-10-780-043-10
; Sequence 10, Application US/10780043
; Publication No. US20040137506A1
; GENERAL INFORMATION:
;  APPLICANT: Bates, Elizabeth
;  APPLICANT:  Fournier, Nathalie
;  APPLICANT:  Chalus, Lionel
;  APPLICANT:  Garrone, Pierre
;  TITLE OF INVENTION: MONOCYTE-DERIVED NUCLEIC ACIDS AND RELATED COMPOSITIONS AND METHO
;  FILE REFERENCE: SF0977X
;  CURRENT APPLICATION NUMBER: US/10/780,043
;  CURRENT FILING DATE:  2004-02-17
;  PRIOR APPLICATION NUMBER: US/09/869,388
;  PRIOR FILING DATE: 2002-02-21
;  NUMBER OF SEQ ID NOS: 14
;  SOFTWARE: IBM PC compatible
; SEQ ID NO 10
;   LENGTH: 226
;   TYPE: PRT
;   ORGANISM: homo sapiens
US-10-780-043-10

  Query Match             100.0%;  Score 25;  DB 16;  Length 226;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+03;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db        115 LRKED 119


Search completed: September 26, 2005, 11:07:19
Job time : 108.909 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: September 26, 2005, 10:36:56 ; Search time 107.727 Seconds
(without alignments)
17.951 Million cell updates/sec

Title: US-10-754-485-37
Perfect score: 25
Sequence: 1 LRKED 5

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2105692 seqs, 386760381 residues

Total number of hits satisfying chosen parameters: 2105692

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 150 summaries

Database : A_Geneseq_16Dec04:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	25	100.0	5	5	AAE29191	Aae29191 Conserved
2	25	100.0	5	5	ABG60640	Abg60640 Polyimmun
3	25	100.0	5	6	ABP55292	Abp55292 Human pol
4	25	100.0	5	7	ADL99576	Adl99576 Polyimmun
5	25	100.0	5	8	ADQ81870	Adq81870 Lung dise
6	25	100.0	25	4	ABB39007	Abb39007 Peptide #
7	25	100.0	25	4	AAM32495	Aam32495 Peptide #
8	25	100.0	25	4	AAM72236	Aam72236 Human bon
9	25	100.0	25	4	AAM59661	Aam59661 Human bra
10	25	100.0	25	4	ABG53922	Abg53922 Human liv
11	25	100.0	25	5	ABG42051	Abg42051 Human pep
12	25	100.0	40	4	AAM32064	Aam32064 Peptide #
13	25	100.0	40	4	AAM71775	Aam71775 Human bon
14	25	100.0	40	4	AAM59236	Aam59236 Human bra
15	25	100.0	40	4	ABG53459	Abg53459 Human liv
16	25	100.0	40	5	ABG41589	Abg41589 Human pep
17	25	100.0	49	6	ABR62388	Abr62388 Secreted
18	25	100.0	51	8	ADS07101	Ads07101 Staphyloc
19	25	100.0	64	4	ABG22428	Abg22428 Novel hum
20	25	100.0	65	4	AAM83679	Aam83679 Human imm
21	25	100.0	66	2	AAY60126	Aay60126 Human end
22	25	100.0	69	4	ABB65914	Abb65914 Drosophil
23	25	100.0	72	5	ABP25743	Abp25743 Streptoco
24	25	100.0	78	5	ABP02521	Abp02521 Human ORF
25	25	100.0	80	4	AAM83057	Aam83057 Human imm
26	25	100.0	89	3	AAG18507	Aag18507 Zea mays
27	25	100.0	95	3	AAG18506	Aag18506 Zea mays
28	25	100.0	100	3	AAG15213	Aag15213 Arabidops
29	25	100.0	101	2	AAW75053	Aaw75053 Fragment
30	25	100.0	101	5	ABG95614	Abg95614 Human nov
31	25	100.0	101	6	ABO34808	Abo34808 Fragment
32	25	100.0	101	7	ADI23469	Adi23469 Novel hum
33	25	100.0	101	8	ADH74471	Adh74471 Human sec
34	25	100.0	103	4	AAU08754	Aau08754 Human ins
35	25	100.0	103	4	ABG01682	Abg01682 Novel hum
36	25	100.0	103	7	ADK41570	Adk41570 Anti-cell
37	25	100.0	105	4	AAU18083	Aau18083 Human imm
38	25	100.0	105	4	AAM91611	Aam91611 Human imm
39	25	100.0	105	4	ABB10437	Abb10437 Human cDN
40	25	100.0	105	5	ABP67024	Abp67024 Human pol
41	25	100.0	105	7	ADB31707	Adb31707 Human nov
42	25	100.0	119	8	ADR10383	Adr10383 Human pro
43	25	100.0	124	7	ADI60413	Adi60413 Secreted
44	25	100.0	129	3	AAB63227	Aab63227 Gene 45 h
45	25	100.0	132	3	AAG24397	Aag24397 Arabidops
46	25	100.0	138	3	AAG24396	Aag24396 Arabidops
47	25	100.0	153	4	AAU31463	Aau31463 Novel hum
48	25	100.0	155	3	AAG24395	Aag24395 Arabidops
49	25	100.0	158	3	AAB25386	Aab25386 Pinus rad
50	25	100.0	160	3	AAG18505	Aag18505 Zea mays
51	25	100.0	176	4	ABG21250	Abg21250 Novel hum
52	25	100.0	184	7	ADF59128	Adf59128 Human pol
53	25	100.0	194	4	ABB62625	Abb62625 Drosophil
54	25	100.0	204	4	ABB62203	Abb62203 Drosophil
55	25	100.0	215	3	AAG45458	Aag45458 Arabidops
56	25	100.0	217	3	AAG32520	Aag32520 Arabidops
57	25	100.0	220	3	AAG45443	Aag45443 Arabidops
58	25	100.0	220	3	AAG14584	Aag14584 Arabidops
59	25	100.0	221	3	AAG45457	Aag45457 Arabidops
60	25	100.0	221	6	ABO52951	Abo52951 Human spl
61	25	100.0	223	3	AAG32519	Aag32519 Arabidops
62	25	100.0	226	2	AAW80407	Aaw80407 A secrete
63	25	100.0	226	2	AAY08015	Aay08015 Human LSP
64	25	100.0	226	3	AAB07447	Aab07447 A human m
65	25	100.0	226	3	AAG14583	Aag14583 Arabidops
66	25	100.0	226	3	AAG45442	Aag45442 Arabidops
67	25	100.0	226	5	ABP61825	Abp61825 Human pol
68	25	100.0	227	3	AAY87230	Aay87230 Human sig
69	25	100.0	227	3	AAB07445	Aab07445 A human m
70	25	100.0	227	4	AAU31465	Aau31465 Novel hum
71	25	100.0	227	6	ABU89824	Abu89824 TNF-recep
72	25	100.0	233	4	ABG27120	Abg27120 Novel hum
73	25	100.0	236	5	ABB54775	Abb54775 Lactococc
74	25	100.0	238	3	AAG45456	Aag45456 Arabidops
75	25	100.0	238	5	ABG95345	Abg95345 Human nov
76	25	100.0	238	6	ABO34539	Abo34539 Region of
77	25	100.0	238	7	ADI23200	Adi23200 Novel hum
78	25	100.0	238	8	ADH74202	Adh74202 Human sec
79	25	100.0	238	8	ADN33768	Adn33768 Histidine
80	25	100.0	239	4	AAU14533	Aau14533 Human nov
81	25	100.0	239	4	AAU14532	Aau14532 Human nov
82	25	100.0	239	8	ADH80850	Adh80850 Human pol
83	25	100.0	239	8	ADH80851	Adh80851 Human pol
84	25	100.0	239	8	ADS12300	Ads12300 Human the
85	25	100.0	240	3	AAG32518	Aag32518 Arabidops
86	25	100.0	251	7	ADK41569	Adk41569 Anti-cell
87	25	100.0	253	3	AAB57023	Aab57023 Human pro
88	25	100.0	254	5	ABP41316	Abp41316 Human ova
89	25	100.0	254	7	ADF41729	Adf41729 Bacillus
90	25	100.0	260	6	ABU45540	Abu45540 Protein e
91	25	100.0	260	6	ABU31878	Abu31878 Protein e
92	25	100.0	260	6	ABU15183	Abu15183 Protein e
93	25	100.0	260	6	ABU28046	Abu28046 Protein e
94	25	100.0	260	6	ABU47615	Abu47615 Protein e
95	25	100.0	261	6	ABU38498	Abu38498 Protein e
96	25	100.0	268	5	ABB93497	Abb93497 Herbicida
97	25	100.0	268	7	ADK41572	Adk41572 Anti-cell
98	25	100.0	268	7	ABO66017	Abo66017 Klebsiell

99	25	100.0	269	4	AAU14296	Aau14296 Human nov
100	25	100.0	278	4	AAU08753	Aau08753 Human ins
101	25	100.0	278	5	ABP27762	Abp27762 Streptoco
102	25	100.0	278	6	ABP56098	Abp56098 Human IGF
103	25	100.0	278	6	ABR62389	Abr62389 Secreted
104	25	100.0	278	7	ADE28659	Ade28659 Human NOV
105	25	100.0	278	7	ADI60186	Adi60186 Secreted
106	25	100.0	278	7	ADK41565	Adk41565 Anti-cell
107	25	100.0	278	8	ADM93404	Adm93404 Human NOV
108	25	100.0	281	6	ADA33164	Ada33164 Acinetoba
109	25	100.0	282	5	AAE15654	Aae15654 Human gro
110	25	100.0	290	3	AAG45441	Aag45441 Arabidops
111	25	100.0	291	2	AAW63682	Aaw63682 Human sec
112	25	100.0	291	3	AAG14582	Aag14582 Arabidops
113	25	100.0	292	3	AAB44544	Aab44544 Virulence
114	25	100.0	292	5	ABP54496	Abp54496 Pasteurel
115	25	100.0	312	6	ABU29709	Abu29709 Protein e
116	25	100.0	314	4	AAU34051	Aau34051 Staphyloc
117	25	100.0	314	4	AAU37241	Aau37241 Staphyloc
118	25	100.0	314	4	AAU36638	Aau36638 Staphyloc
119	25	100.0	314	6	ABU43473	Abu43473 Protein e
120	25	100.0	314	6	ABU15897	Abu15897 Protein e
121	25	100.0	314	6	ABU43240	Abu43240 Protein e
122	25	100.0	314	6	ABM73388	Abm73388 Staphyloc
123	25	100.0	314	7	ADG75272	Adg75272 S aureus
124	25	100.0	314	7	ADG75274	Adg75274 S aureus
125	25	100.0	324	6	ABU22375	Abu22375 Protein e
126	25	100.0	326	4	ABB12010	Abb12010 Human sec
127	25	100.0	329	3	AAB44569	Aab44569 Virulence
128	25	100.0	329	5	ABP54521	Abp54521 Pasteurel
129	25	100.0	329	7	ADC23857	Adc23857 Protein s
130	25	100.0	329	8	ADH35958	Adh35958 Chemical
131	25	100.0	329	8	ADG93659	Adg93659 Nitrilase
132	25	100.0	329	8	ADI62256	Adi62256 Nitrilase
133	25	100.0	329	8	ADI64377	Adi64377 Nitrilase
134	25	100.0	331	6	ABJ25472	Abj25472 Aspergill
135	25	100.0	332	7	ADC97433	Adc97433 E. faeciu
136	25	100.0	333	8	ADR08864	Adr08864 Human pro
137	25	100.0	337	7	ADM06101	Adm06101 Human pro
138	25	100.0	341	4	ABG06178	Abg06178 Novel hum
139	25	100.0	347	8	ADQ65449	Adq65449 Novel hum
140	25	100.0	360	6	ABJ26072	Abj26072 Aspergill
141	25	100.0	361	1	AAP70562	Aap70562 Product o
142	25	100.0	367	7	ADF04358	Adf04358 Bacterial
143	25	100.0	372	8	ADQ97878	Adq97878 Human can
144	25	100.0	373	6	ABU42402	Abu42402 Protein e
145	25	100.0	380	6	ABM71266	Abm71266 Staphyloc
146	25	100.0	382	4	ABB71238	Abb71238 Drosophil
147	25	100.0	392	8	ADP29255	Adp29255 Human sec
148	25	100.0	426	8	ADN17404	Adn17404 Bacterial
149	25	100.0	428	8	ADS43714	Ads43714 Bacterial
150	25	100.0	429	8	ADP99132	Adp99132 C. albica

ALIGNMENTS

RESULT 1
AAE29191
ID AAE29191 standard; peptide; 5 AA.
XX
AC AAE29191;
XX
DT 06-AUG-2003 (revised)
DT 27-JAN-2003 (first entry)
XX
DE Conserved pIgR peptide #1.
XX
KW Polyimmunoglobulin receptor; pIgR; immune response; prophylaxis; cancer;
KW Crohn's disease; eating disorder; therapy; vaccine; infection; receptor;
KW asthma; allergy; monkey; human; mouse; rat; rabbit; cow; possum.
XX
OS Macaca fascicularis.
OS Homo sapiens.
OS Bos taurus.
OS Rattus sp.
OS Mus sp.
OS Oryctolagus cuniculus.
OS Trichosurus vulpecula.
XX
PN WO200274787-A2.
XX
PD 26-SEP-2002.
XX
PF 01-FEB-2002; 2002WO-US003059.
XX
PR 02-FEB-2001; 2001US-0266182P.
XX
PA (ARIZ-) ARIZEKE PHARM INC.
PA (HOUS/) HOUSTON L L.
PA (SHER/) SHERIDAN P L.
XX
PI Houston LL, Sheridan PL;
XX
DR WPI; 2002-759877/82.
XX
PT Identifying small molecules that specifically bind a transcytotic or pIgR
PT target molecule, useful for treating and/or preventing disorders such as
PT cancer, asthma, pathogenic infections, allergies and Crohn's disease.
XX
PS Claim 31; Page 18; 114pp; English.
XX
CC The invention relates to a method of identifying biologically active
CC small molecules that specifically bind a transcytotic molecule or a
CC polyimmunoglobulin receptor (pIgR) target molecule. The method involves
CC contacting candidate small molecules with at least 1 transcytotic
CC molecule or at least one pIgR target molecule so that complexes
CC comprising the transcytotic molecule or pIgR target molecule and a small
CC molecule can form, and identifying the small molecules present in the
CC complexes. The methods and compositions of the present invention are used
CC for identifying, characterising, distinguishing, derivatising, optimising
CC and using compounds that are or comprise a ligand that binds a pIgR
CC molecule used for therapeutic and prophylactic applications, particularly
CC in vaccination and in diseases where a protective immune response is
CC needed or in diseases such as cancer, asthma, pathogenic infections,
CC allergies, Crohn's disease and eating disorders. The present sequence is
CC conserved pIgR peptide. (Updated on 06-AUG-2003 to correct OS field.)
XX
SQ Sequence 5 AA;

Query Match 100.0%; Score 25; DB 5; Length 5;
Best Local Similarity 100.0%; Pred. No. 1.8e+06;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LRKED 5
|||||
Db 1 LRKED 5

RESULT 2
ABG60640
ID ABG60640 standard; peptide; 5 AA.
XX
AC ABG60640;
XX
DT 13-AUG-2002 (first entry)
XX
DE Polyimmunoglobulin receptor (pIgR) conserved peptide #1.
XX
KW Transcellular transport; transcytotic transport; paracellular transport;
KW respiratory system disorder; lung cancer; tumour; asthma;
KW pathogenic infection; allergy-related disorder;
KW gastrointestinal tract disorder; gastrointestinal hormone disorder;
KW Chron's disease; eating disorder; polyimmunoglobulin receptor; pIgR.
XX
OS Unidentified.

XX
PN WO200228408-A2.
XX
PD 11-APR-2002.
XX
PF 02-OCT-2001; 2001WO-US030832.
XX
PR 02-OCT-2000; 2000US-0237929P.
PR 13-NOV-2000; 2000US-0248478P.
PR 14-NOV-2000; 2000US-0248819P.
PR 09-FEB-2001; 2001US-0267601P.
XX
PA (ARIZ-) ARIZEKE PHARM INC.
XX
PI Houston LL, Sheridan PJ, Hawley S, Glynn JM, Chapin S, Basu A;
XX
DR WPI; 2002-416628/44.
XX
PT Complex useful for transporting active agent through epithelial barrier,
PT has biologically active portion and target element directed to ligand
PT that confers e.g. transcytotic properties to agent specific to ligand.
XX
PS Claim 4; Page 334; 379pp; English.
XX
CC The invention described a complex or compound (I) comprising a
CC biologically active portion and a target element (II) directed to a
CC ligand that confers transcellular, transcytotic or paracellular
CC transporting properties to an agent specifically bound to the ligand,
CC where (II) is not an antibody. Alternatively, (I) comprises two or more
CC (II) directed to one or more ligands. (I) is useful for delivering a
CC biologically active agent to an animal, for transporting an active agent
CC through an epithelial or mucosal barrier, and for treating or identifying
CC a disease in an animal e.g. diseases of the respiratory system including
CC lung cancer and tumours, asthma, pathogenic infections, allergy-related
CC disorders, gastrointestinal tract disorders, disorders relating to
CC gastrointestinal hormones, Chron's disease, eating disorders and any
CC disease or disorder involving polyimmunoglobulin receptor (pIgR)
CC displaying cells. This sequence represents a peptide associated with the
CC transport of biologically active agents across cellular barriers
XX
SQ Sequence 5 AA;

Query Match 100.0%; Score 25; DB 5; Length 5;
Best Local Similarity 100.0%; Pred. No. 1.8e+06;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LRKED 5
|||||
Db 1 LRKED 5

RESULT 3
ABP55292
ID ABP55292 standard; peptide; 5 AA.
XX
AC ABP55292;
XX
DT 28-JAN-2003 (first entry)
XX
DE Human polyimmunoglobulin receptor (pIgR) peptide 297-301.
XX
KW Transepithelial transport; membrane bound vesicle; virion; liposome;
KW envelope; capsid; transmembrane domain; gene therapy; immunostimulant;
KW cytostatic; haemostatic; neuroprotective; antirheumatic; antiarthritic;
KW antiulcer; antibacterial; anti-HIV; hepatotropic; virucide; exocytosis;
KW antiinflammatory; apical endocytosis; basolateral endocytosis; ADA-SCID;
KW transcytosis; monogenic disease; ADA deficiency; cystic fibrosis; ALS;
KW X-linked severe combined immunodeficiency; Haemophilia B; cancer; HIV;
KW chronic granulomatous disease; coronary artery disease; viral infection;
KW amyotrophic lateral sclerosis; rheumatoid arthritis; hepatitis; Herpes;
KW pathogenic disorder; human immunodeficiency virus; bacterial infection;
KW tuberculosis; Chlamydiosis; gastrointestinal ulcer; human pIgR;
KW polyimmunoglobulin receptor.
XX
OS Homo sapiens.
XX
PN WO200283840-A2.
XX
PD 24-OCT-2002.
XX
PF 03-APR-2002; 2002WO-US010647.
XX
PR 03-APR-2001; 2001US-0281275P.
XX
PA (ARIZ-) ARIZEKE PHARM INC.
XX
PI Sheridan PL, Houston LL;
XX
DR WPI; 2003-046923/04.
XX
PT Fusion protein which confers the ability to penetrate epithelial cell
PT layer and to undergo paracellular transport, has a transepithelial
PT delivery element and a transmembrane domain from different proteins.
XX
PS Example 1; Page 25; 160pp; English.
XX
CC The present invention describes a fusion protein (I) comprising a
CC transepithelial delivery element (TDE) from a first protein and a
CC transmembrane domain from a second protein, or comprising TDE and a viral
CC sequence that confers the ability to be associated with or incorporated
CC into an envelope or capsid protein of a virus. (I) has immunostimulant,
CC cytostatic, haemostatic, neuroprotective, antirheumatic, antiarthritic,
CC antiulcer, antibacterial, anti-HIV, hepatotropic, virucide and
CC antiinflammatory activities, and can be used in gene therapy. (I) confers
CC the ability to undergo apical endocytosis, basolateral endocytosis,
CC apical or basolateral exocytosis, apical to basolateral transcytosis and
CC basolateral to apical transcytosis. Diseases treatable by gene therapy
CC include monogenic diseases such as X-linked severe combined
CC immunodeficiency, ADA deficiency (ADA-SCID), cystic fibrosis, Haemophilia
CC B, chronic granulomatous disease, cancers such as ovarian cancer, other
CC diseases such as coronary artery disease, amyotrophic lateral sclerosis
CC (ALS), rheumatoid arthritis, pathogenic disorders, including human
CC immunodeficiency virus (HIV), viral infections, hepatitis, non-specific
CC bacterial infection, tuberculosis, Herpes, Chlamydiosis and
CC gastrointestinal ulcer. The present sequence represents a human
CC polyimmunoglobulin receptor (pIgR) peptide which is used in an example
CC from the present invention
XX
SQ Sequence 5 AA;

Query Match 100.0%; Score 25; DB 6; Length 5;
Best Local Similarity 100.0%; Pred. No. 1.8e+06;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LRKED 5
|||||
Db 1 LRKED 5

RESULT 4
ADL99576
ID ADL99576 standard; peptide; 5 AA.
XX
AC ADL99576;
XX
DT 20-MAY-2004 (first entry)
XX
DE Polyimmunoglobulin receptor (pIgR) conserved peptide #1.
XX
KW antipsoriatic; antiinflammatory; neuroprotective; ophthalmological;
KW gastrointestinal; osteopathic; nephrotropic; gene therapy;
KW multimeric molecular complex; transcytotic transport;
KW paracellular transport; calcitonin; osteoporosis; renal failure; colitis;
KW gastroenteritis; inflammatory bowel disease; psoriasis;
KW Alzheimer's disease; optic neuropathy; ophthalmoplegia;
KW polyimmunoglobulin receptor; pIgR targeting element; endocytosis;

KW exocytosis.
XX
OS Unidentified.
XX
PN US2003166160-A1.
XX
PD 04-SEP-2003.
XX
PF 06-SEP-2001; 2001US-00949039.
XX
PR 06-SEP-2001; 2001US-00949039.
XX
PA (HAWL/) HAWLEY S B.
PA (CHAP/) CHAPIN S.
PA (SHER/) SHERIDAN P L.
PA (HOUS/) HOUSTON L L.
PA (GLYN/) GLYNN J M.
XX
PI Hawley SB, Chapin S, Sheridan PL, Houston LL, Glynn JM;
XX
DR WPI; 2003-898076/82.
XX
PT New multimeric molecular complex, useful for preparing a composition for
PT diagnosing or treating e.g. osteoporosis, renal failure, colitis,
PT gastroenteritis, inflammatory bowel disease, psoriasis or Alzheimer's
PT disease.
XX
PS Claim 22; Page 10; 91pp; English.
XX
CC The invention describes a multimeric molecular complex comprising at
CC least 2 compounds, each of which has at least one targeting element
CC directed to a ligand that confers transcytotic or paracellular
CC transporting properties to a molecular complex specifically bound to the
CC ligand. Also described are: a compound comprising at least 2 targeting
CC elements directed to the ligand; a protein conjugate comprising a
CC biologically active calcitonin polypeptide having a chemical linkage to
CC at least one targeting element directed to the ligand; a pharmaceutical
CC composition comprising the compound; delivering a biologically active
CC agent to an animal; transporting a biologically active agent through an
CC epithelial barrier; treating a disease in an animal; and identifying a
CC disease in an animal. The complex is useful for preparing a composition
CC for diagnosing or treating diseases, e.g., osteoporosis, renal failure,
CC colitis, gastroenteritis, inflammatory bowel disease, psoriasis,
CC Alzheimer's disease, optic neuropathy or ophthalmoplegia. This is the
CC amino acid sequence of a conserved peptide from the polyimmunoglobulin
CC receptor (pIgR) that mediates endocytosis, exocytosis and forward and
CC reverse transcytosis in epithelial cells, joined by a myc sequence to a
CC His tag
XX
SQ Sequence 5 AA;

Query Match 100.0%; Score 25; DB 7; Length 5;
Best Local Similarity 100.0%; Pred. No. 1.8e+06;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LRKED 5
|||||
Db 1 LRKED 5

RESULT 5
ADQ81870
ID ADQ81870 standard; peptide; 5 AA.
XX
AC ADQ81870;
XX
DT 21-OCT-2004 (first entry)
XX
DE Lung disease treatment-related epitope peptide #1.
XX
KW lung disease; targeting element; apical; basolateral; transcytosis;
KW in vitro transcytotic assay; antimicrobial; antitubercular;
KW tuberculostatic; virucide; fungicide; antiinflammatory; respiratory-Gen;
KW antiasthmatic; respiratory tract infection; lung infection;
KW bacterial infection; tuberculosis; viral infection;
KW severe acute respiratory syndrome; SARS; fungal infection; pneumonia;
KW interstitium disorder; gas exchange disorder; blood circulation disorder;
KW airway disease; pleura disorder; Chronic Obstructive Pulmonary Disorder;
KW COPD; asthma; epitope.
XX
OS Unidentified.
XX
PN WO2004062603-A2.
XX
PD 29-JUL-2004.
XX
PF 09-JAN-2004; 2004WO-US000445.
XX
PR 09-JAN-2003; 2003US-0439373P.
PR 20-JUN-2003; 2003US-0480047P.
PR 12-AUG-2003; 2003US-0494841P.
XX
PA (ARIZ-) ARIZEKE PHARM INC.
XX
PI Henderson DR;
XX
DR WPI; 2004-553599/53.
XX
PT Treating or preventing a lung disease comprises administering to the
PT subject a compound comprising a therapeutic agent and a targeting element
PT directed to a ligand.
XX
PS Claim 42; Page 90; 108pp; English.
XX
CC This invention relates to a novel method of treating or preventing a lung
CC disease in a subject which comprises administering to the subject via a
CC pulmonary, oropharyngeal or nasopharyngeal route a compound comprising a
CC therapeutic agent and a targeting element directed to a ligand, where the
CC targeting element confers apical to basolateral transcytosis to the
CC therapeutic agent in an in vitro transcytotic assay. The therapeutic
CC agent used in the method may have antimicrobial, antitubercular,
CC tuberculostatic, virucide, fungicide, antiinflammatory, respiratory-Gen
CC or antiasthmatic activity. The method of the invention is useful for
CC treating or preventing a lung disease, for example a respiratory tract
CC infection, an infection of the lung, or a bacterial infection that causes
CC tuberculosis, a viral infection that causes severe acute respiratory
CC syndrome (SARS), fungal infection, causes pneumonia, a disorder of the
CC interstitium, a disorder of gas exchange or blood circulation, a disease
CC of the airways, a disorder of the pleura, Chronic Obstructive Pulmonary
CC Disorder (COPD) or asthma. The present sequence is that of a peptide
CC which may be used in the method of the invention.
XX
SQ Sequence 5 AA;

Query Match 100.0%; Score 25; DB 8; Length 5;
Best Local Similarity 100.0%; Pred. No. 1.8e+06;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LRKED 5
|||||
Db 1 LRKED 5

RESULT 6
ABB39007
ID ABB39007 standard; peptide; 25 AA.
XX
AC ABB39007;
XX
DT 04-FEB-2002 (first entry)
XX
DE Peptide #6513 encoded by human foetal liver single exon probe.
XX
KW Human; foetal liver; gene expression; single exon nucleic acid probe.
XX
OS Homo sapiens.

XX
PN WO200157277-A2.
XX
PD 09-AUG-2001.
XX
PF 30-JAN-2001; 2001WO-US000669.
XX
PR 04-FEB-2000; 2000US-0180312P.
PR 26-MAY-2000; 2000US-0207456P.
PR 30-JUN-2000; 2000US-00608408.
PR 03-AUG-2000; 2000US-00632366.
PR 21-SEP-2000; 2000US-0234687P.
PR 27-SEP-2000; 2000US-0236359P.
PR 04-OCT-2000; 2000GB-00024263.
XX
PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX
DR WPI; 2001-483447/52.
XX
PT Human genome-derived single exon nucleic acid probes useful for analyzing
PT gene expression in human fetal liver.
XX
PS Claim 27; SEQ ID NO 31642; 639pp + Sequence Listing; English.
XX
CC The invention relates to a single exon nucleic acid probe for measuring
CC human gene expression in a sample derived from human foetal liver. The
CC single exon nucleic acid probes may be used for predicting, measuring and
CC displaying gene expression in samples derived from human fetal liver. The
CC present sequence is a peptide encoded by a single exon nucleic acid probe
CC of the invention. Note: The sequence data for this patent did not form
CC part of the printed specification, but was obtained in electronic format
CC directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 25 AA;

Query Match 100.0%; Score 25; DB 4; Length 25;
Best Local Similarity 100.0%; Pred. No. 1.8e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LRKED 5
|||||
Db 9 LRKED 13

RESULT 7
AAM32495
ID AAM32495 standard; protein; 25 AA.
XX
AC AAM32495;
XX
DT 17-OCT-2001 (first entry)
XX
DE Peptide #6532 encoded by probe for measuring placental gene expression.
XX
KW Probe; microarray; human; placenta; antenatal diagnosis;
KW genetic disorder.
XX
OS Homo sapiens.
XX
PN WO200157272-A2.
XX
PD 09-AUG-2001.
XX
PF 30-JAN-2001; 2001WO-US000663.
XX
PR 04-FEB-2000; 2000US-0180312P.
PR 26-MAY-2000; 2000US-0207456P.
PR 30-JUN-2000; 2000US-00608408.
PR 03-AUG-2000; 2000US-00632366.
PR 21-SEP-2000; 2000US-0234687P.
PR 27-SEP-2000; 2000US-0236359P.
PR 04-OCT-2000; 2000GB-00024263.
XX
PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX
DR WPI; 2001-488897/53.
XX
PT Human genome-derived single exon nucleic acid probes useful for analyzing
PT gene expression in human placenta.
XX
PS Claim 27; SEQ ID NO 32764; 654pp; English.
XX
CC The present invention relates to single exon nucleic acid probes (SENP:
CC see AAI31315-AAI57546). The present sequence is a peptide encoded by one
CC such probe. The probes are useful for producing a microarray for
CC predicting, measuring and displaying gene expression in samples derived
CC from human placenta. The probes are useful for antenatal diagnosis of
CC human genetic disorders
XX
SQ Sequence 25 AA;

Query Match 100.0%; Score 25; DB 4; Length 25;
Best Local Similarity 100.0%; Pred. No. 1.8e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LRKED 5
|||||
Db 9 LRKED 13

RESULT 8
AAM72236
ID AAM72236 standard; protein; 25 AA.
XX
AC AAM72236;
XX
DT 06-NOV-2001 (first entry)
XX
DE Human bone marrow expressed probe encoded protein SEQ ID NO: 32542.
XX
KW Human; bone marrow expressed exon; gene expression analysis; probe;
KW microarray; cancer; leukaemia; lymphoma; myeloma.
XX
OS Homo sapiens.
XX
PN WO200157276-A2.
XX
PD 09-AUG-2001.
XX
PF 30-JAN-2001; 2001WO-US000668.
XX
PR 04-FEB-2000; 2000US-0180312P.
PR 26-MAY-2000; 2000US-0207456P.
PR 30-JUN-2000; 2000US-00608408.
PR 03-AUG-2000; 2000US-00632366.
PR 21-SEP-2000; 2000US-0234687P.
PR 27-SEP-2000; 2000US-0236359P.
PR 04-OCT-2000; 2000GB-00024263.
XX
PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX
DR WPI; 2001-488900/53.
XX
PT Human genome-derived single exon nucleic acid probes useful for analyzing
PT gene expression in human bone marrow.
XX
PS Example 4; SEQ ID NO 32542; 658pp + Sequence Listing; English.
XX
CC The present invention provides a number of single exon nucleic acid
CC probes which are derived from genomic sequences expressed in the human

```
CC   bone marrow. They can be used to measure gene expression in bone marrow
CC   samples, which may enable the improved diagnosis and treatment of cancers
CC   such as lymphoma, leukaemia and myeloma. The present sequence is a
CC   protein encoded by one of the probes of the invention
XX
SQ   Sequence 25 AA;

  Query Match             100.0%;  Score 25;  DB 4;  Length 25;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db          9 LRKED 13


RESULT 9
AAM59661
ID   AAM59661 standard; protein; 25 AA.
XX
AC   AAM59661;
XX
DT   05-NOV-2001  (first entry)
XX
DE   Human brain expressed single exon probe encoded protein SEQ ID NO: 31766.
XX
KW   Human; brain expressed exon; gene expression analysis; probe; microarray;
KW   Alzheimer's disease; multiple sclerosis; schizophrenia; epilepsy; cancer.
XX
OS   Homo sapiens.
XX
PN   WO200157275-A2.
XX
PD   09-AUG-2001.
XX
PF   30-JAN-2001; 2001WO-US000667.
XX
PR   04-FEB-2000; 2000US-0180312P.
PR   26-MAY-2000; 2000US-0207456P.
PR   30-JUN-2000; 2000US-00608408.
PR   03-AUG-2000; 2000US-00632366.
PR   21-SEP-2000; 2000US-0234687P.
PR   27-SEP-2000; 2000US-0236359P.
PR   04-OCT-2000; 2000GB-00024263.
XX
PA   (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI   Penn SG,  Hanzel DK,  Chen W,  Rank DR;
XX
DR   WPI; 2001-483446/52.
XX
PT   Single exon nucleic acid probes for analyzing gene expression in human
PT   brains.
XX
PS   Example 4; SEQ ID NO 31766; 650pp + Sequence Listing; English.
XX
CC   The present invention provides a number of single exon nucleic acid
CC   probes which are derived from genomic sequences expressed in the human
CC   brain. They can be used to measure gene expression in brain cell samples,
CC   which may enable the diagnosis and improved treatment of nervous system
CC   diseases such as Alzheimer's disease, multiple sclerosis, schizophrenia,
CC   epilepsy and cancers. The present sequence is a protein encoded by one of
CC   the probes of the invention
XX
SQ   Sequence 25 AA;

  Query Match             100.0%;  Score 25;  DB 4;  Length 25;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
pb          9 LRKED 13


RESULT 10
ABG53922
ID   ABG53922 standard; peptide; 25 AA.
XX
AC   ABG53922;
XX
DT   25-FEB-2003  (first entry)
XX
DE   Human liver peptide, SEQ ID No 32570.
XX
KW   Human; liver; cirrhosis; hyperlipoproteinaemia; hyperlipidaemia;
KW   hypercholesterolaemia; coronary heart disease.
XX
OS   Homo sapiens.
XX
PN   WO200157273-A2.
XX
PD   09-AUG-2001.
XX
PF   30-JAN-2001; 2001WO-US000664.
XX
PR   04-FEB-2000; 2000US-0180312P.
PR   26-MAY-2000; 2000US-0207456P.
PR   30-JUN-2000; 2000US-00608408.
PR   03-AUG-2000; 2000US-00632366.
PR   21-SEP-2000; 2000US-0234687P.
PR   27-SEP-2000; 2000US-0236359P.
PR   04-OCT-2000; 2000GB-00024263.
XX
PA   (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI   Penn SG,  Hanzel DK,  Chen W,  Rank DR;
XX
DR   WPI; 2001-488898/53.
XX
PT   Human genome-derived single exon nucleic acid probes useful for analyzing
PT   gene expression in human adult liver.
XX
PS   Claim 27; SEQ ID NO 32570; 658pp; English.
XX
CC   The invention relates to a single exon nucleic acid probe (SENP) (I) for
CC   measuring human gene expression in a sample derived from human adult
CC   liver, comprising one of 13109 defined nucleotide sequences given in the
CC   specification (or complements/ fragments). The probe hybridises at high
CC   stringency to a nucleic acid molecule expressed in the human adult liver.
CC   (I) may be used for predicting, measuring and displaying gene expression
CC   in samples derived from human adult liver. The genes identified may be
CC   involved in genetic liver diseases such as cirrhosis,
CC   hyperlipoproteinaemia, hyperlipidaemia and hypercholesterolaemia which is
CC   associated with coronary heart disease. ABG47348-ABG59930 represent human
CC   liver single exon encoded peptides of the invention. Note: The sequence
CC   information for this patent does not appear in the printed specification
CC   but was obtained in electronic format directly from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 25 AA;

  Query Match             100.0%;  Score 25;  DB 4;  Length 25;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db          9 LRKED 13


RESULT 11
ABG42051
ID   ABG42051 standard; peptide; 25 AA.
XX
AC   ABG42051;
```

XX
DT 19-AUG-2002 (first entry)
XX
DE Human peptide encoded by genome-derived single exon probe SEQ ID 31716.
XX
KW Human; single exon probe; asthma; lung cancer; COPD; ILD;
KW chronic obstructive pulmonary disease; interstitial lung disease;
KW familial idiopathic pulmonary fibrosis; neurofibromatosis;
KW tuberous sclerosis; Gaucher's disease; Niemann-Pick disease;
KW Hermansky-Pudlak syndrome; sarcoidosis; pulmonary haemosiderosis;
KW pulmonary histiocytosis; lymphangioleiomyomtosis; Karagener syndrome;
KW pulmonary alveolar proteinosis; fibrocystic pulmonary dysplasia;
KW primary ciliary dyskinesis; pulmonary hypertension;
KW hyaline membrane disease.
XX
OS Homo sapiens.
XX
PN WO200186003-A2.
XX
PD 15-NOV-2001.
XX
PF 30-JAN-2001; 2001WO-US000665.
XX
PR 04-FEB-2000; 2000US-0180312P.
PR 26-MAY-2000; 2000US-0207456P.
PR 30-JUN-2000; 2000US-00608408.
PR 03-AUG-2000; 2000US-00632366.
PR 21-SEP-2000; 2000US-0234687P.
PR 27-SEP-2000; 2000US-0236359P.
PR 04-OCT-2000; 2000GB-00024263.
XX
PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX
DR WPI; 2002-114183/15.
XX
PT Spatially-addressable set of single exon nucleic acid probes, used to
PT measure gene expression in human lung samples.
XX
PS Claim 27; SEQ ID NO 31716; 634pp; English.
XX
CC The invention relates to a spatially-addressable set of single exon
CC nucleic acid probes for measuring gene expression in a sample derived
CC from human lung comprising single exon nucleic acid probes having one of
CC 12614 nucleic acid sequences mentioned in the specification, or their
CC complements or the 12387 open reading frames derived from the 12614
CC probes. Also included are a microarray comprising the novel set of probes
CC ; the novel set of probes which hybridise at high stringency to a nucleic
CC acid expressed in the human lung; measuring gene expression in a sample
CC derived from human lung, comprising (a) contacting the array with a
CC collection of detectably labeled nucleic acids derived from human lung
CC mRNA, and (b) measuring the label detectably bound to each probe of the
CC array; identifying exons in a eukaryotic genome, comprising (a)
CC algorithmically predicting at least one exon from genomic sequences of
CC the eukaryote; and (b) detecting specific hybridisation of detectably
CC labeled nucleic acids from eukaryote lung mRNA, to a single exon probe,
CC having a fragment identical to the predicted exon, the probe is included
CC in the above mentioned microarray; assigning exons to a single gene,
CC comprising (a) identifying exons from genomic sequence by the method
CC above and (b) measuring the expression of each of the exons in several
CC tissues and/or cell types using hybridisation to a single exon
CC microarrays having a probe with the exon, where a common pattern of
CC expression of the exons in the tissues and/or cell types indicates that
CC the exons should be assigned to a single gene; a peptide comprising one
CC of 12011 sequences, mentioned in the specification, or encoded by the
CC probes/open reading frames (ORF). The probes are used for gene expression
CC analysis, and for identifying exons in a gene, particularly using human
CC lung derived mRNA and for the study of lung diseases such as asthma, lung
CC cancer, chronic obstructive pulmonary disease (COPD), interstitial lung
CC disease (ILD), familial idiopathic pulmonary fibrosis, neurofibromatosis,
CC tuberous sclerosis, Gaucher's disease, Niemann-Pick disease, Hermansky-
CC Pudlak syndrome, sarcoidosis, pulmonary haemosiderosis, pulmonary
CC histiocytosis, lymphangioleiomyomtosis, pulmonary alveolar proteinosis,
CC Karagener syndrome, fibrocystic pulmonary dysplasia, primary ciliary
CC dyskinesis, pulmonary hypertension and hyaline membrane disease. The
CC present sequence is a peptide/protein encoded by a single exon probe of
CC the invention. Note: The sequence data for this patent did not form part
CC of the printed specification, but was obtained in electronic format
CC directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 25 AA;

Query Match 100.0%; Score 25; DB 5; Length 25;
Best Local Similarity 100.0%; Pred. No. 1.8e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LRKED 5
|||||
Db 9 LRKED 13

RESULT 12
AAM32064
ID AAM32064 standard; protein; 40 AA.
XX
AC AAM32064;
XX
DT 17-OCT-2001 (first entry)
XX
DE Peptide #6101 encoded by probe for measuring placental gene expression.
XX
KW Probe; microarray; human; placenta; antenatal diagnosis;
KW genetic disorder.
XX
OS Homo sapiens.
XX
PN WO200157272-A2.
XX
PD 09-AUG-2001.
XX
PF 30-JAN-2001; 2001WO-US000663.
XX
PR 04-FEB-2000; 2000US-0180312P.
PR 26-MAY-2000; 2000US-0207456P.
PR 30-JUN-2000; 2000US-00608408.
PR 03-AUG-2000; 2000US-00632366.
PR 21-SEP-2000; 2000US-0234687P.
PR 27-SEP-2000; 2000US-0236359P.
PR 04-OCT-2000; 2000GB-00024263.
XX
PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX
DR WPI; 2001-488897/53.
XX
PT Human genome-derived single exon nucleic acid probes useful for analyzing
PT gene expression in human placenta.
XX
PS Claim 27; SEQ ID NO 32333; 654pp; English.
XX
CC The present invention relates to single exon nucleic acid probes (SENP:
CC see AAI31315-AAI57546). The present sequence is a peptide encoded by one
CC such probe. The probes are useful for producing a microarray for
CC predicting, measuring and displaying gene expression in samples derived
CC from human placenta. The probes are useful for antenatal diagnosis of
CC human genetic disorders
XX
SQ Sequence 40 AA;

Query Match 100.0%; Score 25; DB 4; Length 40;
Best Local Similarity 100.0%; Pred. No. 2.8e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LRKED 5

```
              |||||
Db         28 LRKED 32


RESULT 13
AAM71775
ID   AAM71775 standard; protein; 40 AA.
XX
AC   AAM71775;
XX
DT   06-NOV-2001  (first entry)
XX
DE   Human bone marrow expressed probe encoded protein SEQ ID NO: 32081.
XX
KW   Human; bone marrow expressed exon; gene expression analysis; probe;
KW   microarray; cancer; leukaemia; lymphoma; myeloma.
XX
OS   Homo sapiens.
XX
PN   WO200157276-A2.
XX
PD   09-AUG-2001.
XX
PF   30-JAN-2001; 2001WO-US000668.
XX
PR   04-FEB-2000; 2000US-0180312P.
PR   26-MAY-2000; 2000US-0207456P.
PR   30-JUN-2000; 2000US-00608408.
PR   03-AUG-2000; 2000US-00632366.
PR   21-SEP-2000; 2000US-0234687P.
PR   27-SEP-2000; 2000US-0236359P.
PR   04-OCT-2000; 2000GB-00024263.
XX
PA   (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI   Penn SG,  Hanzel DK,  Chen W,  Rank DR;
XX
DR   WPI; 2001-488900/53.
XX
PT   Human genome-derived single exon nucleic acid probes useful for analyzing
PT   gene expression in human bone marrow.
XX
PS   Example 4; SEQ ID NO 32081; 658pp + Sequence Listing; English.
XX
CC   The present invention provides a number of single exon nucleic acid
CC   probes which are derived from genomic sequences expressed in the human
CC   bone marrow. They can be used to measure gene expression in bone marrow
CC   samples, which may enable the improved diagnosis and treatment of cancers
CC   such as lymphoma, leukaemia and myeloma. The present sequence is a
CC   protein encoded by one of the probes of the invention
XX
SQ   Sequence 40 AA;

  Query Match             100.0%;  Score 25;  DB 4;  Length 40;
  Best Local Similarity   100.0%;  Pred. No. 2.8e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db         28 LRKED 32


RESULT 14
AAM59236
ID   AAM59236 standard; protein; 40 AA.
XX
AC   AAM59236;
XX
DT   05-NOV-2001  (first entry)
XX
DE   Human brain expressed single exon probe encoded protein SEQ ID NO: 31341.
XX
KW   Human; brain expressed exon; gene expression analysis; probe; microarray;
KW   Alzheimer's disease; multiple sclerosis; schizophrenia; epilepsy; cancer.
XX
OS   Homo sapiens.
XX
PN   WO200157275-A2.
XX
PD   09-AUG-2001.
XX
PF   30-JAN-2001; 2001WO-US000667.
XX
PR   04-FEB-2000; 2000US-0180312P.
PR   26-MAY-2000; 2000US-0207456P.
PR   30-JUN-2000; 2000US-00608408.
PR   03-AUG-2000; 2000US-00632366.
PR   21-SEP-2000; 2000US-0234687P.
PR   27-SEP-2000; 2000US-0236359P.
PR   04-OCT-2000; 2000GB-00024263.
XX
PA   (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI   Penn SG,  Hanzel DK,  Chen W,  Rank DR;
XX
DR   WPI; 2001-483446/52.
XX
PT   Single exon nucleic acid probes for analyzing gene expression in human
PT   brains.
XX
PS   Example 4; SEQ ID NO 31341; 650pp + Sequence Listing; English.
XX
CC   The present invention provides a number of single exon nucleic acid
CC   probes which are derived from genomic sequences expressed in the human
CC   brain. They can be used to measure gene expression in brain cell samples,
CC   which may enable the diagnosis and improved treatment of nervous system
CC   diseases such as Alzheimer's disease, multiple sclerosis, schizophrenia,
CC   epilepsy and cancers. The present sequence is a protein encoded by one of
CC   the probes of the invention
XX
SQ   Sequence 40 AA;

  Query Match             100.0%;  Score 25;  DB 4;  Length 40;
  Best Local Similarity   100.0%;  Pred. No. 2.8e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db         28 LRKED 32


RESULT 15
ABG53459
ID   ABG53459 standard; peptide; 40 AA.
XX
AC   ABG53459;
XX
DT   25-FEB-2003  (first entry)
XX
DE   Human liver peptide, SEQ ID No 32107.
XX
KW   Human; liver; cirrhosis; hyperlipoproteinaemia; hyperlipidaemia;
KW   hypercholesterolaemia; coronary heart disease.
XX
OS   Homo sapiens.
XX
PN   WO200157273-A2.
XX
PD   09-AUG-2001.
XX
PF   30-JAN-2001; 2001WO-US000664.
XX
PR   04-FEB-2000; 2000US-0180312P.
PR   26-MAY-2000; 2000US-0207456P.
PR   30-JUN-2000; 2000US-00608408.
PR   03-AUG-2000; 2000US-00632366.
```

PR 21-SEP-2000; 2000US-0234687P.
PR 27-SEP-2000; 2000US-0236359P.
PR 04-OCT-2000; 2000GB-00024263.
XX
PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX
DR WPI; 2001-488898/53.
XX
PT Human genome-derived single exon nucleic acid probes useful for analyzing
PT gene expression in human adult liver.
XX
PS Claim 27; SEQ ID NO 32107; 658pp; English.
XX
CC The invention relates to a single exon nucleic acid probe (SENP) (I) for
CC measuring human gene expression in a sample derived from human adult
CC liver, comprising one of 13109 defined nucleotide sequences given in the
CC specification (or complements/ fragments). The probe hybridises at high
CC stringency to a nucleic acid molecule expressed in the human adult liver.
CC (I) may be used for predicting, measuring and displaying gene expression
CC in samples derived from human adult liver. The genes identified may be
CC involved in genetic liver diseases such as cirrhosis,
CC hyperlipoproteinaemia, hyperlipidaemia and hypercholesterolaemia which is
CC associated with coronary heart disease. ABG47348-ABG59930 represent human
CC liver single exon encoded peptides of the invention. Note: The sequence
CC information for this patent does not appear in the printed specification
CC but was obtained in electronic format directly from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 40 AA;

Query Match 100.0%; Score 25; DB 4; Length 40;
Best Local Similarity 100.0%; Pred. No. 2.8e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LRKED 5
|||||
Db 28 LRKED 32

RESULT 16
ABG41589
ID ABG41589 standard; peptide; 40 AA.
XX
AC ABG41589;
XX
DT 19-AUG-2002 (first entry)
XX
DE Human peptide encoded by genome-derived single exon probe SEQ ID 31254.
XX
KW Human; single exon probe; asthma; lung cancer; COPD; ILD;
KW chronic obstructive pulmonary disease; interstitial lung disease;
KW familial idiopathic pulmonary fibrosis; neurofibromatosis;
KW tuberous sclerosis; Gaucher's disease; Niemann-Pick disease;
KW Hermansky-Pudlak syndrome; sarcoidosis; pulmonary haemosiderosis;
KW pulmonary histiocytosis; lymphangioleiomyomtosis; Karagener syndrome;
KW pulmonary alveolar proteinosis; fibrocystic pulmonary dysplasia;
KW primary ciliary dyskinesis; pulmonary hypertension;
KW hyaline membrane disease.
XX
OS Homo sapiens.
XX
PN WO200186003-A2.
XX
PD 15-NOV-2001.
XX
PF 30-JAN-2001; 2001WO-US000665.
XX
PR 04-FEB-2000; 2000US-0180312P.
PR 26-MAY-2000; 2000US-0207456P.
PR 30-JUN-2000; 2000US-00608408.
PR 03-AUG-2000; 2000US-00632366.
PR 21-SEP-2000; 2000US-0234687P.
PR 27-SEP-2000; 2000US-0236359P.
PR 04-OCT-2000; 2000GB-00024263.
XX
PA (MOLE-) MOLECULAR DYNAMICS INC.
XX
PI Penn SG, Hanzel DK, Chen W, Rank DR;
XX
DR WPI; 2002-114183/15.
XX
PT Spatially-addressable set of single exon nucleic acid probes, used to
PT measure gene expression in human lung samples.
XX
PS Claim 27; SEQ ID NO 31254; 634pp; English.
XX
CC The invention relates to a spatially-addressable set of single exon
CC nucleic acid probes for measuring gene expression in a sample derived
CC from human lung comprising single exon nucleic acid probes having one of
CC 12614 nucleic acid sequences mentioned in the specification, or their
CC complements or the 12387 open reading frames derived from the 12614
CC probes. Also included are a microarray comprising the novel set of probes
CC ; the novel set of probes which hybridise at high stringency to a nucleic
CC acid expressed in the human lung; measuring gene expression in a sample
CC derived from human lung, comprising (a) contacting the array with a
CC collection of detectably labeled nucleic acids derived from human lung
CC mRNA, and (b) measuring the label detectably bound to each probe of the
CC array; identifying exons in a eukaryotic genome, comprising (a)
CC algorithmically predicting at least one exon from genomic sequences of
CC the eukaryote; and (b) detecting specific hybridisation of detectably
CC labeled nucleic acids from eukaryote lung mRNA, to a single exon probe,
CC having a fragment identical to the predicted exon, the probe is included
CC in the above mentioned microarray; assigning exons to a single gene,
CC comprising (a) identifying exons from genomic sequence by the method
CC above and (b) measuring the expression of each of the exons in several
CC tissues and/or cell types using hybridisation to a single exon
CC microarrays having a probe with the exon, where a common pattern of
CC expression of the exons in the tissues and/or cell types indicates that
CC the exons should be assigned to a single gene; a peptide comprising one
CC of 12011 sequences, mentioned in the specification, or encoded by the
CC probes/open reading frames (ORF). The probes are used for gene expression
CC analysis, and for identifying exons in a gene, particularly using human
CC lung derived mRNA and for the study of lung diseases such as asthma, lung
CC cancer, chronic obstructive pulmonary disease (COPD), interstitial lung
CC disease (ILD), familial idiopathic pulmonary fibrosis, neurofibromatosis,
CC tuberous sclerosis, Gaucher's disease, Niemann-Pick disease, Hermansky-
CC Pudlak syndrome, sarcoidosis, pulmonary haemosiderosis, pulmonary
CC histiocytosis, lymphangioleiomyomtosis, pulmonary alveolar proteinosis,
CC Karagener syndrome, fibrocystic pulmonary dysplasia, primary ciliary
CC dyskinesis, pulmonary hypertension and hyaline membrane disease. The
CC present sequence is a peptide/protein encoded by a single exon probe of
CC the invention. Note: The sequence data for this patent did not form part
CC of the printed specification, but was obtained in electronic format
CC directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 40 AA;

Query Match 100.0%; Score 25; DB 5; Length 40;
Best Local Similarity 100.0%; Pred. No. 2.8e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LRKED 5
|||||
Db 28 LRKED 32

RESULT 17
ABR62388
ID ABR62388 standard; protein; 49 AA.
XX
AC ABR62388;
XX
DT 03-OCT-2003 (first entry)
XX

```
DE   Secreted protein INSP030 exon 4-encoded polypeptide.
XX
KW   INSP030; secreted protein; human; cytostatic; immunosuppressive;
KW   antiinflammatory; cardiant; cardiovascular; nootropic; neurodegenerative;
KW   anorectic; antidiabetic; nephrotropic; antiasthmatic;
KW   antiarteriosclerotic; vasotropic; osteopathic;
KW   insulin-like growth factor binding protein; vaccine; transgenic;
KW   gene therapy.
XX
OS   Homo sapiens.
XX
PN   WO2003054004-A2.
XX
PD   03-JUL-2003.
XX
PF   20-DEC-2002; 2002WO-GB005858.
XX
PR   20-DEC-2001; 2001GB-00030557.
XX
PA   (ARES-) ARES TRADING SA.
XX
PI   Rodrigues TM,  Fagan RJ,  Phelps CB,  Power C,  Yorke M,  Ibberson M;
XX
DR   WPI; 2003-559121/52.
DR   N-PSDB; ACC84152.
XX
PT   New INSP030 and INSP031 secreted proteins of the insulin-like growth
PT   factor binding protein class, useful for diagnosing and treating a
PT   disease, e.g. a cell proliferative disorder, cardiovascular disorder or
PT   metabolic disorder.
XX
PS   Example 1; Page 57; 86pp; English.
XX
CC   The present sequence is a partial sequence encoded by exon 4 of the human
CC   INSP030 gene. INSP030 is a novel secreted protein which is a member of
CC   the insulin-like growth factor binding protein (IGFBP) family. A full-
CC   length protein sequence for INSP030 is given in ABR62389. The invention
CC   provides novel INSP030 and INSP031 secreted proteins, nucleic acids
CC   encoding them, and compounds that increase or decrease their expression
CC   or activity, especially a substrate, ligand, enzyme, receptor or mimetic.
CC   These are useful for diagnosing or treating a disease, such as a cell
CC   proliferative, autoimmune/inflammatory, cardiovascular disorder,
CC   neurological, developmental, metabolic or reproductive disorder,
CC   infection, growth disorder (e.g. growth hormone deficiency, acromegaly,
CC   intrauterine growth retardation, macrosomia), tumourigenesis and cancer
CC   (e.g. breast cancer), diabetes and its complications (e.g. diabetic
CC   kidney disease), chronic renal failure, vascular disease, asthma,
CC   atherosclerosis and restenosis, or other pathological condition (all
CC   claimed), and in claimed vaccine compositions. Claimed non-human
CC   transgenic animals can be used to screen for a compound effective to
CC   treat a disease
XX
SQ   Sequence 49 AA;

  Query Match             100.0%;  Score 25;  DB 6;  Length 49;
  Best Local Similarity   100.0%;  Pred. No. 3.4e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db          4 LRKED 8


RESULT 18
ADS07101
ID   ADS07101 standard; protein; 51 AA.
XX
AC   ADS07101;
XX
DT   04-NOV-2004  (first entry)
XX
DE   Staphylococcus epidermis polypeptide seqid 6396.
XX
KW   antibacterial; vaccine; antisense therapy; Staphylococcus epidermidis;
KW   recombinant expression vector; infection; computer readable medium;
KW   computer based system.
XX
OS   Staphylococcus epidermidis.
XX
PN   US2004147734-A1.
XX
PD   29-JUL-2004.
XX
PF   01-DEC-2003; 2003US-00724972.
XX
PR   08-NOV-1997;   97US-0064964P.
PR   13-AUG-1998;   98US-00134001.
PR   29-NOV-1999;   99US-00450969.
XX
PA   (DOUC/) DOUCETTE-STAMM L.
PA   (BUSH/) BUSH D.
XX
PI   Doucette-Stamm L,  Bush D;
XX
DR   WPI; 2004-580138/56.
DR   N-PSDB; ADS03329.
XX
PT   New isolated polypeptide and encoding nucleic acid derived from
PT   Staphylococcus epidermidis, useful for diagnosing, preventing and/or
PT   treating an S. epidermidis bacterial infection.
XX
PS   Claim 17; SEQ ID NO 6396; 741pp; English.
XX
CC   The invention describes an isolated nucleic acid comprising a nucleotide
CC   sequence with any of 3772 fully defined nucleotide sequences (SEQ ID NO:
CC   1-3772) and encoding an Staphylococcus epidermidis polypeptide with any
CC   of 3772 fully defined amino acid sequences (SEQ ID NO: 3772-7544) as
CC   given in the specification. Also described are: a recombinant expression
CC   vector; a cell comprising a recombinant expression vector of (1);
CC   producing an S. epidermidis polypeptide; an isolated nucleic acid
CC   comprising a nucleotide sequence of at least 8 nucleotides in length; a
CC   vaccine composition for prevention or treatment of an S. epidermidis
CC   infection, comprising a nucleic acid cited above and a carrier; treating
CC   a subject for S. epidermidis infection; a recombinant or substantially
CC   pure preparation of an S. epidermidis polypeptide or its fragment; a
CC   vaccine composition for prevention or treatment of an S. epidermidis
CC   infection; detecting the presence of a Staphylococcus nucleic acid in a
CC   sample; a computer readable medium having recorded in it the nucleotide
CC   sequences with SEQ ID NO: 1-3772 or its fragments; a computer based
CC   system for identifying fragments of the Staphylococcus genome of
CC   commercial importance; a computer based system for identifying fragments
CC   of the Staphylococcus plasmids of commercial importance; identifying
CC   commercially important nucleic acid fragments of the Staphylococcus
CC   genome and/or plasmids; and identifying an expression modulating fragment
CC   of the Staphylococcus genome and/or plasmids. The methods and
CC   compositions of the present invention are useful for the diagnosis,
CC   prevention and/or treatment of an Staphylococcal epidermidis bacterial
CC   infection. This is the amino acid sequence of a S. epidermis protein of
CC   the invention.
XX
SQ   Sequence 51 AA;

  Query Match             100.0%;  Score 25;  DB 8;  Length 51;
  Best Local Similarity   100.0%;  Pred. No. 3.5e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db         47 LRKED 51


RESULT 19
ABG22428
ID   ABG22428 standard; protein; 64 AA.
XX
AC   ABG22428;
```

XX
DT 18-FEB-2002 (first entry)
XX
DE Novel human diagnostic protein #22419.
XX
KW Human; chromosome mapping; gene mapping; gene therapy; forensic;
KW food supplement; medical imaging; diagnostic; genetic disorder.
XX
OS Homo sapiens.
XX
PN WO200175067-A2.
XX
PD 11-OCT-2001.
XX
PF 30-MAR-2001; 2001WO-US008631.
XX
PR 31-MAR-2000; 2000US-00540217.
PR 23-AUG-2000; 2000US-00649167.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Drmanac RT, Liu C, Tang YT;
XX
DR WPI; 2001-639362/73.
DR N-PSDB; AAS86615.
XX
PT New isolated polynucleotide and encoded polypeptides, useful in
PT diagnostics, forensics, gene mapping, identification of mutations
PT responsible for genetic disorders or other traits and to assess
PT biodiversity.
XX
PS Claim 20; SEQ ID NO 52787; 103pp; English.
XX
CC The invention relates to isolated polynucleotide (I) and polypeptide (II)
CC sequences. (I) is useful as hybridisation probes, polymerase chain
CC reaction (PCR) primers, oligomers, and for chromosome and gene mapping,
CC and in recombinant production of (II). The polynucleotides are also used
CC in diagnostics as expressed sequence tags for identifying expressed
CC genes. (I) is useful in gene therapy techniques to restore normal
CC activity of (II) or to treat disease states involving (II). (II) is
CC useful for generating antibodies against it, detecting or quantitating a
CC polypeptide in tissue, as molecular weight markers and as a food
CC supplement. (II) and its binding partners are useful in medical imaging
CC of sites expressing (II). (I) and (II) are useful for treating disorders
CC involving aberrant protein expression or biological activity. The
CC polypeptide and polynucleotide sequences have applications in
CC diagnostics, forensics, gene mapping, identification of mutations
CC responsible for genetic disorders or other traits to assess biodiversity
CC and to produce other types of data and products dependent on DNA and
CC amino acid sequences. ABG00010-ABG30377 represent novel human diagnostic
CC amino acid sequences of the invention. Note: The sequence data for this
CC patent did not appear in the printed specification, but was obtained in
CC electronic format directly from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 64 AA;

Query Match 100.0%; Score 25; DB 4; Length 64;
Best Local Similarity 100.0%; Pred. No. 4.3e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LRKED 5
|||||
Db 5 LRKED 9

RESULT 20
AAM83679
ID AAM83679 standard; protein; 65 AA.
XX
AC AAM83679;
XX
DT 07-NOV-2001 (first entry)
XX
DE Human immune/haematopoietic antigen SEQ ID NO:11272.
XX
KW Human; immune; haematopoietic; immune/haematopoietic antigen; cancer;
KW cytostatic; gene therapy; vaccine; metastasis.
XX
OS Homo sapiens.
XX
PN WO200157182-A2.
XX
PD 09-AUG-2001.
XX
PF 17-JAN-2001; 2001WO-US001354.
XX
PR 31-JAN-2000; 2000US-0179065P.
PR 04-FEB-2000; 2000US-0180628P.
PR 24-FEB-2000; 2000US-0184664P.
PR 02-MAR-2000; 2000US-0186350P.
PR 16-MAR-2000; 2000US-0189874P.
PR 17-MAR-2000; 2000US-0190076P.
PR 18-APR-2000; 2000US-0198123P.
PR 19-MAY-2000; 2000US-0205515P.
PR 07-JUN-2000; 2000US-0209467P.
PR 28-JUN-2000; 2000US-0214886P.
PR 30-JUN-2000; 2000US-0215135P.
PR 07-JUL-2000; 2000US-0216647P.
PR 07-JUL-2000; 2000US-0216880P.
PR 11-JUL-2000; 2000US-0217487P.
PR 11-JUL-2000; 2000US-0217496P.
PR 14-JUL-2000; 2000US-0218290P.
PR 26-JUL-2000; 2000US-0220963P.
PR 26-JUL-2000; 2000US-0220964P.
PR 14-AUG-2000; 2000US-0224518P.
PR 14-AUG-2000; 2000US-0224519P.
PR 14-AUG-2000; 2000US-0225213P.
PR 14-AUG-2000; 2000US-0225214P.
PR 14-AUG-2000; 2000US-0225266P.
PR 14-AUG-2000; 2000US-0225267P.
PR 14-AUG-2000; 2000US-0225268P.
PR 14-AUG-2000; 2000US-0225270P.
PR 14-AUG-2000; 2000US-0225447P.
PR 14-AUG-2000; 2000US-0225757P.
PR 14-AUG-2000; 2000US-0225758P.
PR 14-AUG-2000; 2000US-0225759P.
PR 18-AUG-2000; 2000US-0226279P.
PR 22-AUG-2000; 2000US-0226681P.
PR 22-AUG-2000; 2000US-0226868P.
PR 22-AUG-2000; 2000US-0227182P.
PR 23-AUG-2000; 2000US-0227009P.
PR 30-AUG-2000; 2000US-0228924P.
PR 01-SEP-2000; 2000US-0229287P.
PR 01-SEP-2000; 2000US-0229343P.
PR 01-SEP-2000; 2000US-0229344P.
PR 01-SEP-2000; 2000US-0229345P.
PR 05-SEP-2000; 2000US-0229509P.
PR 05-SEP-2000; 2000US-0229513P.
PR 06-SEP-2000; 2000US-0230437P.
PR 06-SEP-2000; 2000US-0230438P.
PR 08-SEP-2000; 2000US-0231242P.
PR 08-SEP-2000; 2000US-0231243P.
PR 08-SEP-2000; 2000US-0231244P.
PR 08-SEP-2000; 2000US-0231413P.
PR 08-SEP-2000; 2000US-0231414P.
PR 08-SEP-2000; 2000US-0232080P.
PR 08-SEP-2000; 2000US-0232081P.
PR 12-SEP-2000; 2000US-0231968P.
PR 14-SEP-2000; 2000US-0232397P.
PR 14-SEP-2000; 2000US-0232398P.
PR 14-SEP-2000; 2000US-0232399P.
PR 14-SEP-2000; 2000US-0232400P.
PR 14-SEP-2000; 2000US-0232401P.
PR 14-SEP-2000; 2000US-0233063P.
PR 14-SEP-2000; 2000US-0233064P.

PR 14-SEP-2000; 2000US-0233065P.
PR 21-SEP-2000; 2000US-0234223P.
PR 21-SEP-2000; 2000US-0234274P.
PR 25-SEP-2000; 2000US-0234997P.
PR 25-SEP-2000; 2000US-0234998P.
PR 26-SEP-2000; 2000US-0235484P.
PR 27-SEP-2000; 2000US-0235834P.
PR 27-SEP-2000; 2000US-0235836P.
PR 29-SEP-2000; 2000US-0236327P.
PR 29-SEP-2000; 2000US-0236367P.
PR 29-SEP-2000; 2000US-0236368P.
PR 29-SEP-2000; 2000US-0236369P.
PR 29-SEP-2000; 2000US-0236370P.
PR 02-OCT-2000; 2000US-0236802P.
PR 02-OCT-2000; 2000US-0237037P.
PR 02-OCT-2000; 2000US-0237038P.
PR 02-OCT-2000; 2000US-0237039P.
PR 02-OCT-2000; 2000US-0237040P.
PR 13-OCT-2000; 2000US-0239935P.
PR 13-OCT-2000; 2000US-0239937P.
PR 20-OCT-2000; 2000US-0240960P.
PR 20-OCT-2000; 2000US-0241221P.
PR 20-OCT-2000; 2000US-0241785P.
PR 20-OCT-2000; 2000US-0241786P.
PR 20-OCT-2000; 2000US-0241787P.
PR 20-OCT-2000; 2000US-0241808P.
PR 20-OCT-2000; 2000US-0241809P.
PR 20-OCT-2000; 2000US-0241826P.
PR 01-NOV-2000; 2000US-0244617P.
PR 08-NOV-2000; 2000US-0246474P.
PR 08-NOV-2000; 2000US-0246475P.
PR 08-NOV-2000; 2000US-0246476P.
PR 08-NOV-2000; 2000US-0246477P.
PR 08-NOV-2000; 2000US-0246478P.
PR 08-NOV-2000; 2000US-0246523P.
PR 08-NOV-2000; 2000US-0246524P.
PR 08-NOV-2000; 2000US-0246525P.
PR 08-NOV-2000; 2000US-0246526P.
PR 08-NOV-2000; 2000US-0246527P.
PR 08-NOV-2000; 2000US-0246528P.
PR 08-NOV-2000; 2000US-0246532P.
PR 08-NOV-2000; 2000US-0246609P.
PR 08-NOV-2000; 2000US-0246610P.
PR 08-NOV-2000; 2000US-0246611P.
PR 08-NOV-2000; 2000US-0246613P.
PR 17-NOV-2000; 2000US-0249207P.
PR 17-NOV-2000; 2000US-0249208P.
PR 17-NOV-2000; 2000US-0249209P.
PR 17-NOV-2000; 2000US-0249210P.
PR 17-NOV-2000; 2000US-0249211P.
PR 17-NOV-2000; 2000US-0249212P.
PR 17-NOV-2000; 2000US-0249213P.
PR 17-NOV-2000; 2000US-0249214P.
PR 17-NOV-2000; 2000US-0249215P.
PR 17-NOV-2000; 2000US-0249216P.
PR 17-NOV-2000; 2000US-0249217P.
PR 17-NOV-2000; 2000US-0249218P.
PR 17-NOV-2000; 2000US-0249244P.
PR 17-NOV-2000; 2000US-0249245P.
PR 17-NOV-2000; 2000US-0249264P.
PR 17-NOV-2000; 2000US-0249265P.
PR 17-NOV-2000; 2000US-0249297P.
PR 17-NOV-2000; 2000US-0249299P.
PR 17-NOV-2000; 2000US-0249300P.
PR 01-DEC-2000; 2000US-0250160P.
PR 01-DEC-2000; 2000US-0250391P.
PR 05-DEC-2000; 2000US-0251030P.
PR 05-DEC-2000; 2000US-0251988P.
PR 05-DEC-2000; 2000US-0256719P.
PR 06-DEC-2000; 2000US-0251479P.
PR 08-DEC-2000; 2000US-0251856P.
PR 08-DEC-2000; 2000US-0251868P.
PR 08-DEC-2000; 2000US-0251869P.
PR 08-DEC-2000; 2000US-0251989P.
PR 08-DEC-2000; 2000US-0251990P.
PR 11-DEC-2000; 2000US-0254097P.
PR 05-JAN-2001; 2001US-0259678P.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Barash SC, Ruben SM;
XX
DR WPI; 2001-483426/52.
DR N-PSDB; AAK56460.
XX
PT Nucleic acids encoding human immune/hematopoietic antigen polypeptides,
PT useful for preventing, diagnosing and/or treating cancers and metastasis.
XX
PS Claim 11; SEQ ID NO 11272; 3071pp + Sequence Listing; English.
XX
CC AAK54951 to AAK64702 encode the human immune/haematopoietic antigen (I)
CC amino acid sequences given in AAM82170 to AAM91921. (I) have cytostatic
CC activity, and can be used in gene therapy and vaccine production. (I)
CC proteins and polynucleotides may be used in the prevention, diagnosis and
CC treatment of diseases associated with inappropriate (I) expression. For
CC example, they may be used to treat disorders associated with decreased
CC expression by rectifying mutations or deletions in a patient's genome
CC that affect the activity of (I) by expressing inactive proteins or to
CC supplement the patients own production of (I). Additionally, (I)
CC polynucleotides may be used to produce the secreted (I), by inserting the
CC nucleic acids into a host cell and culturing the cell to express the
CC protein. (I) proteins and polynucleotides may be used to prevent,
CC diagnose and treat immune/haematopoietic-related diseases, especially
CC cancers and cancer metastases of haematopoietic-derived cells. AAK64703
CC to AAK87694 represent human immune/haematopoietic antigen genomic
CC sequences from the present invention. AAK54942 to AAK54950 and AAM82169
CC represent sequences used in the exemplification of the present invention
XX
SQ Sequence 65 AA;

Query Match 100.0%; Score 25; DB 4; Length 65;
Best Local Similarity 100.0%; Pred. No. 4.4e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LRKED 5
|||||
Db 37 LRKED 41

RESULT 21
AAY60126
ID AAY60126 standard; protein; 66 AA.
XX
AC AAY60126;
XX
DT 31-JAN-2000 (first entry)
XX
DE Human endometrium tumour EST encoded protein 186.
XX
KW Endometrium; human; tumour; cancer; anticancer; cytostatic;
KW EST: treatment; uterine; gene therapy; expressed sequence tag.
XX
OS Homo sapiens.
XX
PN DE19817948-A1.
XX
PD 21-OCT-1999.
XX
PF 17-APR-1998; 98DE-01017948.
XX
PR 17-APR-1998; 98DE-01017948.
XX
PA (META-) METAGEN GES GENOMFORSCHUNG MBH.
XX
PI Rosenthal A, Specht T, Hinzmann B, Schmitt A, Pilarsky C, Dahl E;
XX

DR WPI; 1999-591957/51.
DR N-PSDB; AAZ42042.
XX
PT New nucleic acid sequences expressed in uterine cancer tissues, and
PT derived polypeptides, for treatment of uterine and endometrial cancer and
PT identification of therapeutic agents.
XX
PS Claim 23; Page 349; 444pp; German.
XX
CC This invention describes novel human nucleic acid (cDNA) sequences (A),
CC that are highly expressed in uterine tumour tissue and which have
CC anticancer and cytostatic activity. (A) are used (i) for recombinant
CC expression of polypeptides (B) and (ii) to isolate complete genes. (B)
CC are used (i) to identify agents suitable for treatment of uterine or
CC endometrial cancer; (ii) directly for treating these forms of cancer
CC (including expression from gene therapy vectors) and (iii) for generation
CC of specific antibodies. (A) are identified by assembling ESTs (expressed
CC sequence tags) from a particular tissue type before comparison of
CC expression patterns. This allows a significantly longer fragment of the
CC gene to be revealed, so should reduce the number of failures associated
CC with the fact that ESTs from different libraries may represent different
CC parts of the same unknown gene, distorting the estimated frequency of
CC occurrence in a particular tissue. AAY59941-Y60328 represent protein
CC fragments encoded by the human endometrium tumour cDNA library derived
CC EST fragments represented in AAZ41981-Z42121
XX
SQ Sequence 66 AA;

Query Match 100.0%; Score 25; DB 2; Length 66;
Best Local Similarity 100.0%; Pred. No. 4.5e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LRKED 5
|||||
Db 31 LRKED 35

RESULT 22
ABB65914
ID ABB65914 standard; protein; 69 AA.
XX
AC ABB65914;
XX
DT 26-MAR-2002 (first entry)
XX
DE Drosophila melanogaster polypeptide SEQ ID NO 24534.
XX
KW Drosophila; developmental biology; cell signalling; insecticide;
KW pharmaceutical.
XX
OS Drosophila melanogaster.
XX
PN WO200171042-A2.
XX
PD 27-SEP-2001.
XX
PF 23-MAR-2001; 2001WO-US009231.
XX
PR 23-MAR-2000; 2000US-0191637P.
PR 11-JUL-2000; 2000US-00614150.
XX
PA (PEKE) PE CORP NY.
XX
PI Venter JC, Adams M, Li PWD, Myers EW;
XX
DR WPI; 2001-656860/75.
DR N-PSDB; ABL10017.
XX
PT New isolated nucleic acid detection reagent for detecting 1000 or more
PT genes from Drosophila and for elucidating cell signaling and cell-cell
PT interactions.
XX
PS Disclosure; SEQ ID NO 24534; 21pp + Sequence Listing; English.
XX
CC The invention relates to an isolated nucleic acid detection reagent
CC capable of detecting 1000 or more genes from Drosophila. The invention is
CC useful in developmental biology and in elucidating cell signalling and
CC cell-cell interactions in higher eukaryotes for the development of
CC insecticides, therapeutics and pharmaceutical drugs. The invention
CC discloses genomic DNA sequences (ABL16176-ABL30511), expressed DNA
CC sequences (ABL01840-ABL16175) and the encoded proteins (ABB57737-
CC ABB72072). The sequence data for this patent did not form part of the
CC printed specification, but was obtained in electronic format directly
CC from WIPO at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 69 AA;

Query Match 100.0%; Score 25; DB 4; Length 69;
Best Local Similarity 100.0%; Pred. No. 4.7e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LRKED 5
|||||
Db 32 LRKED 36

RESULT 23
ABP25743
ID ABP25743 standard; protein; 72 AA.
XX
AC ABP25743;
XX
DT 02-JUL-2002 (first entry)
XX
DE Streptococcus polypeptide SEQ ID NO 662.
XX
KW Streptococcus; GAS; GBS; group B streptococcus; Streptococcus agalactiae;
KW group A streptococcus; Streptococcus pyogenes; antibacterial;
KW antiinflammatory; infection; vaccine; meningitis; gene therapy.
XX
OS Streptococcus agalactiae.
XX
PN WO200234771-A2.
XX
PD 02-MAY-2002.
XX
PF 29-OCT-2001; 2001WO-GB004789.
XX
PR 27-OCT-2000; 2000GB-00026333.
PR 24-NOV-2000; 2000GB-00028727.
PR 07-MAR-2001; 2001GB-00005640.
XX
PA (CHIR-) CHIRON SPA.
PA (GENO-) INST GENOMIC RES.
XX
PI Telford J, Masignani V, Margarit Y RosI, Grandi G, Fraser C;
PI Tettelin H;
XX
DR WPI; 2002-352536/38.
DR N-PSDB; ABN66374.
XX
PT New Streptococcus protein for the treatment or prevention of infection or
PT disease caused by Streptococcus bacteria, such as meningitis, and for
PT detecting a compound that binds to the protein.
XX
PS Claim 1; Page 3219; 4525pp; English.
XX
CC The invention relates to a protein (ABP25413-ABP30895) from group B
CC streptococcus/GBS (Streptococcus agalactiae) or group A streptococcus/GAS
CC (Streptococcus pyogenes), comprising one of 5483 sequences (S1), given in
CC the specification. The proteins have antibacterial and antiinflammatory
CC activity. (I), nucleic acids encoding (I), ABN66044-ABN71526 and
CC antibodies that bind (I) are used in the manufacture of medicaments for
CC the treatment or prevention of infection or disease caused by
CC Streptococcus bacteria, particularly S. agalactiae and S. pyrogenes.
CC Nucleic acids encoding (I) are used to detect Streptococcus in a

```
CC   biological sample. (I) is used to determine whether a compound binds to
CC   (I). A composition comprising (I) or a nucleic acid encoding (I), may be
CC   used as a vaccine or diagnostic composition. The disease caused by
CC   Streptococcus that is prevented or treated may be meningitis. Nucleic
CC   acid encoding (I) may be used to recombinantly produce (I) and may be
CC   used in gene therapy. Antibodies to (I) are used for affinity
CC   chromatography, immunoassays, and distinguishing/identifying
CC   Streptococcus proteins
XX
SQ   Sequence 72 AA;

  Query Match             100.0%;  Score 25;  DB 5;  Length 72;
  Best Local Similarity   100.0%;  Pred. No. 4.8e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db         68 LRKED 72


RESULT 24
ABP02521
ID   ABP02521 standard; protein; 78 AA.
XX
AC   ABP02521;
XX
DT   24-JUN-2002  (first entry)
XX
DE   Human ORFX protein sequence SEQ ID NO:5024.
XX
KW   Human; open reading frame; ORFX; gene therapy; cancer; cirrhosis;
KW   hyperproliferative disorder; psoriasis; benign tumour; haemorrhage;
KW   degenerative disorder; osteoarthritis; neurodegenerative disorder;
KW   cardiovascular disease; diabetes mellitus; systemic lupus erythematosus;
KW   hypertension; hypothyroidism; cholesterol ester storage disease;
KW   immune deficiency; immune disorder; infectious disease;
KW   autoimmune disorder; rheumatoid arthritis; autoimmune thyroiditis;
KW   myasthenia gravis.
XX
OS   Homo sapiens.
XX
PN   WO200192523-A2.
XX
PD   06-DEC-2001.
XX
PF   29-MAY-2001; 2001WO-US010836.
XX
PR   30-MAY-2000; 2000US-0206132P.
PR   29-AUG-2000; 2000US-0228716P.
XX
PA   (CURA-) CURAGEN CORP.
XX
PI   Shimkets RA,  Leach MD;
XX
DR   WPI; 2002-106308/14.
DR   N-PSDB; ABN18273.
XX
PT   Novel human polypeptides and polynucleotides useful for diagnosing,
PT   preventing and treating cardiovascular disease, neurodegenerative,
PT   hyperproliferative disorders and autoimmune disorders.
XX
PS   Disclosure; SEQ ID NO 5024; 1037pp; English.
XX
CC   The present invention describes substantially purified human proteins
CC   (referred to as open reading frame, ORFX, where X is 1-11491 (see Table 1
CC   in the specification). ABN15762 to ABN27252 encode the human ORFX
CC   proteins given in ABP00010 to ABP11500. ORFX proteins are useful for
CC   treating or preventing a pathology associated with an ORFX-associated
CC   disorder in humans, and in the manufacture of a medicament for treating a
CC   syndrome associated with ORFX-associated disorder. ORFX polynucleotide
CC   sequences can be used in gene therapy. ORFX sequences can be used in the
CC   treatment of cancer, hyperproliferative disorders, cirrhosis of liver,
CC   psoriasis, benign tumours, keloid, degenerative disorders, haemorrhage,
CC   osteoarthritis, neurodegenerative disorders, disorders related to organ
CC   transplantation, cardiovascular diseases, diabetes mellitus, systemic
CC   lupus erythematosus, hypertension, hypothyroidism, cholesterol ester
CC   storage disease, various immune deficiencies and disorders, infectious
CC   diseases, autoimmune disorders such as multiple sclerosis, rheumatoid
CC   arthritis, autoimmune thyroiditis, myasthenia gravis, graft-versus-host
CC   disease and autoimmune inflammatory eye disease. ORFX proteins are also
CC   useful for treating burns, incisions, ulcers, for treating osteoporosis,
CC   bone degenerative disorders, or periodontal disease, and for gut
CC   protection or regeneration and treatment of lung or liver fibrosis,
CC   reperfusion injury in various tissues and conditions resulting from
CC   systemic cytokine damage. N.B. The sequence data for this patent did not
CC   form part of the printed specification, but was obtained in electronic
CC   format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 78 AA;

  Query Match             100.0%;  Score 25;  DB 5;  Length 78;
  Best Local Similarity   100.0%;  Pred. No. 5.2e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db          7 LRKED 11


RESULT 25
AAM83057
ID   AAM83057 standard; protein; 80 AA.
XX
AC   AAM83057;
XX
DT   07-NOV-2001  (first entry)
XX
DE   Human immune/haematopoietic antigen SEQ ID NO:10650.
XX
KW   Human; immune; haematopoietic; immune/haematopoietic antigen; cancer;
KW   cytostatic; gene therapy; vaccine; metastasis.
XX
OS   Homo sapiens.
XX
PN   WO200157182-A2.
XX
PD   09-AUG-2001.
XX
PF   17-JAN-2001; 2001WO-US001354.
XX
PR   31-JAN-2000; 2000US-0179065P.
PR   04-FEB-2000; 2000US-0180628P.
PR   24-FEB-2000; 2000US-0184664P.
PR   02-MAR-2000; 2000US-0186350P.
PR   16-MAR-2000; 2000US-0189874P.
PR   17-MAR-2000; 2000US-0190076P.
PR   18-APR-2000; 2000US-0198123P.
PR   19-MAY-2000; 2000US-0205515P.
PR   07-JUN-2000; 2000US-0209467P.
PR   28-JUN-2000; 2000US-0214886P.
PR   30-JUN-2000; 2000US-0215135P.
PR   07-JUL-2000; 2000US-0216647P.
PR   07-JUL-2000; 2000US-0216880P.
PR   11-JUL-2000; 2000US-0217487P.
PR   11-JUL-2000; 2000US-0217496P.
PR   14-JUL-2000; 2000US-0218290P.
PR   26-JUL-2000; 2000US-0220963P.
PR   26-JUL-2000; 2000US-0220964P.
PR   14-AUG-2000; 2000US-0224518P.
PR   14-AUG-2000; 2000US-0224519P.
PR   14-AUG-2000; 2000US-0225213P.
PR   14-AUG-2000; 2000US-0225214P.
PR   14-AUG-2000; 2000US-0225266P.
PR   14-AUG-2000; 2000US-0225267P.
PR   14-AUG-2000; 2000US-0225268P.
PR   14-AUG-2000; 2000US-0225270P.
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PR 14-AUG-2000; 2000US-0225447P.
PR 14-AUG-2000; 2000US-0225757P.
PR 14-AUG-2000; 2000US-0225758P.
PR 14-AUG-2000; 2000US-0225759P.
PR 18-AUG-2000; 2000US-0226279P.
PR 22-AUG-2000; 2000US-0226681P.
PR 22-AUG-2000; 2000US-0226868P.
PR 22-AUG-2000; 2000US-0227182P.
PR 23-AUG-2000; 2000US-0227009P.
PR 30-AUG-2000; 2000US-0228924P.
PR 01-SEP-2000; 2000US-0229287P.
PR 01-SEP-2000; 2000US-0229343P.
PR 01-SEP-2000; 2000US-0229344P.
PR 01-SEP-2000; 2000US-0229345P.
PR 05-SEP-2000; 2000US-0229509P.
PR 05-SEP-2000; 2000US-0229513P.
PR 06-SEP-2000; 2000US-0230437P.
PR 06-SEP-2000; 2000US-0230438P.
PR 08-SEP-2000; 2000US-0231242P.
PR 08-SEP-2000; 2000US-0231243P.
PR 08-SEP-2000; 2000US-0231244P.
PR 08-SEP-2000; 2000US-0231413P.
PR 08-SEP-2000; 2000US-0231414P.
PR 08-SEP-2000; 2000US-0232080P.
PR 08-SEP-2000; 2000US-0232081P.
PR 12-SEP-2000; 2000US-0231968P.
PR 14-SEP-2000; 2000US-0232397P.
PR 14-SEP-2000; 2000US-0232398P.
PR 14-SEP-2000; 2000US-0232399P.
PR 14-SEP-2000; 2000US-0232400P.
PR 14-SEP-2000; 2000US-0232401P.
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XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Barash SC, Ruben SM;
XX
DR WPI; 2001-483426/52.
DR N-PSDB; AAK55838.
XX
PT Nucleic acids encoding human immune/hematopoietic antigen polypeptides,
PT useful for preventing, diagnosing and/or treating cancers and metastasis.
XX
PS Claim 11; SEQ ID NO 10650; 3071pp + Sequence Listing; English.
XX
CC AAK54951 to AAK64702 encode the human immune/haematopoietic antigen (I)
CC amino acid sequences given in AAM82170 to AAM91921. (I) have cytostatic
CC activity, and can be used in gene therapy and vaccine production. (I)
CC proteins and polynucleotides may be used in the prevention, diagnosis and
CC treatment of diseases associated with inappropriate (I) expression. For
CC example, they may be used to treat disorders associated with decreased
CC expression by rectifying mutations or deletions in a patient's genome
CC that affect the activity of (I) by expressing inactive proteins or to
CC supplement the patients own production of (I). Additionally, (I)
CC polynucleotides may be used to produce the secreted (I), by inserting the
CC nucleic acids into a host cell and culturing the cell to express the
CC protein. (I) proteins and polynucleotides may be used to prevent,
CC diagnose and treat immune/haematopoietic-related diseases, especially
CC cancers and cancer metastases of haematopoietic-derived cells. AAK64703
CC to AAK87694 represent human immune/haematopoietic antigen genomic
CC sequences from the present invention. AAK54942 to AAK54950 and AAM82169
CC represent sequences used in the exemplification of the present invention
XX
SQ Sequence 80 AA;

Query Match 100.0%; Score 25; DB 4; Length 80;
Best Local Similarity 100.0%; Pred. No. 5.4e+02;
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KW   termination sequence; corn.
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AC AAG18506;
XX
DT 17-OCT-2000 (first entry)
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DE Zea mays protein fragment SEQ ID NO: 19942.
XX
KW Protein identification; signal transduction pathway; metabolic pathway;
KW hybridisation assay; genetic mapping; gene expression control; promoter;
KW termination sequence; corn.
XX
OS Zea mays subsp. mays.
XX
PN EP1033405-A2.
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Query Match 100.0%; Score 25; DB 3; Length 95;
Best Local Similarity 100.0%; Pred. No. 6.3e+02;
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Db         22 LRKED 26
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XX
AC AAG15213;
XX
DT 17-OCT-2000 (first entry)
XX

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KW Protein identification; signal transduction pathway; metabolic pathway;
KW hybridisation assay; genetic mapping; gene expression control; promoter;
KW termination sequence.
XX
OS Arabidopsis thaliana.
XX
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XX
PD 06-SEP-2000.
XX
PF 25-FEB-2000; 2000EP-00301439.
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AC AAW75053;
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DT 25-JAN-1999 (first entry)
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KW fusion protein; cancer; central nervous system; seizure; diagnosis;
KW neurodegenerative disease.
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OS Homo sapiens.
XX
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XX
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PR 02-OCT-1997; 97US-0061060P.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Ruben SM, Rosen CA, Fischer CL, Soppet DR, Carter KC;
PI Bednarik DP, Endress GA, Yu G, Ni J, Feng P, Young PE, Greene JM;
PI Ferrie AM, Duan R, Hu J, Florence KA, Olsen HS, Ebner R, Brewer LA;
PI Moore PA, Shi Y, Lafleur DW, Li Y, Zeng Z, Kyaw H;
XX
DR WPI; 1998-506364/43.
XX
PT New isolated human genes and the secreted polypeptide(s) they encode -
PT useful for diagnosis and treatment of e.g. cancers, neurological
PT disorders, immune diseases, inflammation or blood disorders.
XX
PS Disclosure; Page 103; 721pp; English.
XX
CC This sequence represents a fragment of a secreted human protein encoded
CC by the nucleic acid molecule designated Gene 166 (AAV59676). The gene can
CC be used to generate fusion proteins by linking to the gene to a human
CC immunoglobulin Fc portion (e.g. AAV59502) for increasing the stability of
CC the fused protein as compared to the human protein only. The invention
CC relates to 186 novel genes and their fragments (nucleic acid sequences:
CC AAV59511-V59812; amino acid sequences AAW74731-W75026) which are useful
CC for preventing, treating or ameliorating medical conditions e.g. by
CC protein or gene therapy. Also, pathological conditions can be diagnosed
CC by determining the amount of the new polypeptides in a sample or by
CC determining the presence of mutations in the new polynucleotides.
CC Specific uses are described for each of the 186 polynucleotides, based on
CC which tissues they are most highly expressed in (see AAV59511 for
CC described uses)
XX

SQ Sequence 101 AA;

Query Match 100.0%; Score 25; DB 2; Length 101;
Best Local Similarity 100.0%; Pred. No. 6.7e+02;
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Db 81 LRKED 85

RESULT 30
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DT 15-JAN-2003 (first entry)
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KW rheumatoid arthritis; hyperproliferative disorder; breast neoplasm;
KW liver neoplasm cardiovascular disorder; cardiac arrest; skin aging;
KW cerebrovascular disorder; cerebral ischaemia; angiogenesis; sunburn;
KW nervous system disorders; Alzheimer's disease; infection;
KW ocular disorder; corneal infection; wound healing; tissue regeneration;
KW epithelial cell proliferation; organ transplantation; food additive;
KW preservative; nutritional.
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OS Homo sapiens.
XX
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XX
PD 16-JUL-2002.
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PF 08-SEP-1998; 98US-00149476.
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PR 23-MAY-1997; 97US-0047617P.
PR 23-MAY-1997; 97US-0047618P.
PR 23-MAY-1997; 97US-0047632P.
PR 23-MAY-1997; 97US-0047633P.
PR 06-JUN-1997; 97US-0048964P.
PR 06-JUN-1997; 97US-0048974P.
PR 13-JUN-1997; 97US-0049610P.
PR 08-JUL-1997; 97US-0051926P.
PR 16-JUL-1997; 97US-0052874P.
PR 18-AUG-1997; 97US-0055724P.
PR 22-AUG-1997; 97US-0056630P.
PR 22-AUG-1997; 97US-0056631P.
PR 22-AUG-1997; 97US-0056632P.
PR 22-AUG-1997; 97US-0056636P.
PR 22-AUG-1997; 97US-0056637P.
PR 22-AUG-1997; 97US-0056662P.
PR 22-AUG-1997; 97US-0056664P.
PR 22-AUG-1997; 97US-0056845P.
PR 22-AUG-1997; 97US-0056862P.
PR 22-AUG-1997; 97US-0056864P.
PR 22-AUG-1997; 97US-0056872P.
PR 22-AUG-1997; 97US-0056874P.
PR 22-AUG-1997; 97US-0056875P.
PR 22-AUG-1997; 97US-0056876P.
PR 22-AUG-1997; 97US-0056877P.
PR 22-AUG-1997; 97US-0056878P.
PR 22-AUG-1997; 97US-0056879P.
PR 22-AUG-1997; 97US-0056880P.
PR 22-AUG-1997; 97US-0056881P.
PR 22-AUG-1997; 97US-0056882P.
PR 22-AUG-1997; 97US-0056884P.
PR 22-AUG-1997; 97US-0056886P.
PR 22-AUG-1997; 97US-0056887P.
PR 22-AUG-1997; 97US-0056888P.
PR 22-AUG-1997; 97US-0056889P.
PR 22-AUG-1997; 97US-0056892P.
PR 22-AUG-1997; 97US-0056893P.
PR 22-AUG-1997; 97US-0056894P.
PR 22-AUG-1997; 97US-0056903P.
PR 22-AUG-1997; 97US-0056908P.
PR 22-AUG-1997; 97US-0056909P.
PR 22-AUG-1997; 97US-0056910P.
PR 22-AUG-1997; 97US-0056911P.
PR 05-SEP-1997; 97US-0057650P.
PR 05-SEP-1997; 97US-0057669P.
PR 05-SEP-1997; 97US-0057761P.
PR 12-SEP-1997; 97US-0058785P.
PR 02-OCT-1997; 97US-0061060P.
PR 06-MAR-1998; 98WO-US004493.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Ruben SM, Rosen CA, Fischer CL, Soppet DP, Carter KC;
PI Bednarik DR, Endress GA, Yu G, Ni J, Feng P, Young PE, Greene JM;
PI Ferrie AM, Duan R, Hu J, Florence KA, Olsen HS, Ebner R, Brewer LA;
PI Moore PA, Shi Y, Lafleur DW, Li Y, Zeng Z, Kyaw H;
XX
DR WPI; 2002-634796/68.
XX
PT New isolated human secreted protein for diagnosing, preventing, treating
PT or ameliorating medical conditions and used as a food additive or
PT preservative.
XX
PS Disclosure; Col 145-146; 129pp; English.
XX
CC The invention relates to an isolated protein that is one of 186 human
CC secreted proteins, given in the specification, encoded by one of 309 cDNA
CC sequences also given in the specification. The protein is used in a
CC pharmaceutical composition used to prevent, treat or ameliorate a medical
CC condition in e.g. humans, mice, rabbits, goats, horses, cats, dogs,
CC chickens or sheep. Disorders which are diagnosed or treated include
CC autoimmune diseases e.g. rheumatoid arthritis, hyperproliferative
CC disorders e.g. neoplasms of the breast or liver, cardiovascular disorders
CC e.g. cardiac arrest, cerebrovascular disorders e.g. cerebral ischaemia,
CC angiogenesis, nervous system disorders e.g. Alzheimer's disease,
CC infections caused by bacteria, viruses and fungi and ocular disorders
CC e.g. corneal infection. The polypeptides can also be used to aid wound
CC healing and epithelial cell proliferation, to prevent skin aging due to
CC sunburn, to maintain organs before transplantation, for supporting cell
CC culture of primary tissues, to regenerate tissues and in chemotaxis. The
CC polypeptides can also be used as a food additive or preservative to
CC increase or decrease storage capabilities, fat content, lipid, protein,
CC carbohydrate, vitamins, minerals, cofactors and other nutritional
CC components. The present sequence represents one of the novel human
CC secreted proteins of the invention
XX
SQ Sequence 101 AA;

Query Match 100.0%; Score 25; DB 5; Length 101;
Best Local Similarity 100.0%; Pred. No. 6.7e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LRKED 5
|||||
Db 81 LRKED 85

RESULT 31
ABO34808
ID ABO34808 standard; protein; 101 AA.
XX
AC ABO34808;
XX
DT 22-SEP-2003 (first entry)
XX
DE Fragment #126 of a human secreted protein.
XX
KW Human; secreted protein; hyperproliferative disorder; leukaemia;
KW breast cancer; wound; reproductive disorder; blood-related disorder;
KW haemophilia; thrombocytopaenia; immunodeficiency; thymic hypoplasia;
KW Wiskott-Aldrich syndrome; autoimmune disorder; multiple sclerosis;
KW graft-versus-host disease; Hashimoto's thyroiditis; allergy; asthma;
KW viral infection; bacterial infection; fungal infection; AIDS; sepsis;
KW renal disorder; kidney failure; cardiovascular disorder; cytostatic;
KW angina pectoris; cerebral ischaemia; congenital heart defect;
KW respiratory disorder; neurological disorder; Alzheimer's disease;
KW Parkinson's disease; inflammation; Crohn's disease; vulnerary;
KW immunosuppressive; antibacterial; haemostatic; thrombolytic;
KW anticoagulant; neuroprotective; thyromimetic; antiallergic;
KW antiasthmatic; virucide; fungicide; anti-HIV; nephrotropic; antianginal;
KW cerebroprotective; cardiant; nootropic; antiparkinsonian;
KW antiinflammatory.
XX
OS Homo sapiens.
XX
PN US2003049618-A1.
XX
PD 13-MAR-2003.
XX

PF 16-MAR-2001; 2001US-00809391.
XX
PR 07-MAR-1997; 97US-0038621P.
PR 07-MAR-1997; 97US-0040162P.
PR 07-MAR-1997; 97US-0040163P.
PR 07-MAR-1997; 97US-0040333P.
PR 07-MAR-1997; 97US-0040334P.
PR 07-MAR-1997; 97US-0040336P.
PR 07-MAR-1997; 97US-0040626P.
PR 11-APR-1997; 97US-0043311P.
PR 11-APR-1997; 97US-0043312P.
PR 11-APR-1997; 97US-0043313P.
PR 11-APR-1997; 97US-0043314P.
PR 11-APR-1997; 97US-0043315P.
PR 11-APR-1997; 97US-0043568P.
PR 11-APR-1997; 97US-0043569P.
PR 11-APR-1997; 97US-0043576P.
PR 11-APR-1997; 97US-0043578P.
PR 11-APR-1997; 97US-0043580P.
PR 11-APR-1997; 97US-0043669P.
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PR 11-APR-1997; 97US-0043672P.
PR 11-APR-1997; 97US-0043674P.
PR 23-MAY-1997; 97US-0047492P.
PR 23-MAY-1997; 97US-0047500P.
PR 23-MAY-1997; 97US-0047501P.
PR 23-MAY-1997; 97US-0047502P.
PR 23-MAY-1997; 97US-0047503P.
PR 23-MAY-1997; 97US-0047581P.
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PR 23-MAY-1997; 97US-0047585P.
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PR 23-MAY-1997; 97US-0047587P.
PR 23-MAY-1997; 97US-0047588P.
PR 23-MAY-1997; 97US-0047589P.
PR 23-MAY-1997; 97US-0047590P.
PR 23-MAY-1997; 97US-0047592P.
PR 23-MAY-1997; 97US-0047593P.
PR 23-MAY-1997; 97US-0047594P.
PR 23-MAY-1997; 97US-0047595P.
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PR 23-MAY-1997; 97US-0047597P.
PR 23-MAY-1997; 97US-0047598P.
PR 23-MAY-1997; 97US-0047599P.
PR 23-MAY-1997; 97US-0047600P.
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PR 23-MAY-1997; 97US-0047615P.
PR 23-MAY-1997; 97US-0047617P.
PR 23-MAY-1997; 97US-0047618P.
PR 23-MAY-1997; 97US-0047632P.
PR 23-MAY-1997; 97US-0047633P.
PR 06-JUN-1997; 97US-0048964P.
PR 06-JUN-1997; 97US-0048974P.
PR 13-JUN-1997; 97US-0049610P.
PR 08-JUL-1997; 97US-0051926P.
PR 16-JUL-1997; 97US-0052874P.
PR 18-AUG-1997; 97US-0055724P.
PR 22-AUG-1997; 97US-0056630P.
PR 22-AUG-1997; 97US-0056631P.
PR 22-AUG-1997; 97US-0056632P.
PR 22-AUG-1997; 97US-0056636P.
PR 22-AUG-1997; 97US-0056637P.
PR 22-AUG-1997; 97US-0056662P.
PR 22-AUG-1997; 97US-0056664P.
PR 22-AUG-1997; 97US-0056845P.
PR 22-AUG-1997; 97US-0056862P.
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PR 22-AUG-1997; 97US-0056874P.
PR 22-AUG-1997; 97US-0056875P.
PR 22-AUG-1997; 97US-0056876P.
PR 22-AUG-1997; 97US-0056877P.
PR 22-AUG-1997; 97US-0056878P.
PR 22-AUG-1997; 97US-0056879P.
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PR 22-AUG-1997; 97US-0056881P.
PR 22-AUG-1997; 97US-0056882P.
PR 22-AUG-1997; 97US-0056884P.
PR 22-AUG-1997; 97US-0056886P.
PR 22-AUG-1997; 97US-0056887P.
PR 22-AUG-1997; 97US-0056888P.
PR 22-AUG-1997; 97US-0056889P.
PR 22-AUG-1997; 97US-0056892P.
PR 22-AUG-1997; 97US-0056893P.
PR 22-AUG-1997; 97US-0056894P.
PR 22-AUG-1997; 97US-0056903P.
PR 22-AUG-1997; 97US-0056908P.
PR 22-AUG-1997; 97US-0056909P.
PR 22-AUG-1997; 97US-0056910P.
PR 22-AUG-1997; 97US-0056911P.
PR 05-SEP-1997; 97US-0057650P.
PR 05-SEP-1997; 97US-0057669P.
PR 05-SEP-1997; 97US-0057761P.
PR 12-SEP-1997; 97US-0058785P.
PR 09-OCT-1997; 97US-0061660P.
PR 06-MAR-1998; 98WO-US004493.
PR 08-SEP-1998; 98US-00149476.
PR 17-MAR-2000; 2000US-0190068P.
XX
PA (RUBE/) RUBEN S M.
PA (ROSE/) ROSEN C A.
PA (SOPP/) SOPPET D R.
PA (CART/) CARTER K C.
PA (BEDN/) BEDNARIK D P.
PA (ENDR/) ENDRESS G A.
PA (YUGG/) YU G.
PA (NIJJ/) NI J.
PA (FENG/) FENG P.
PA (YOUN/) YOUNG P E.
PA (GREE/) GREENE J M.
PA (FERR/) FERRIE A M.
PA (DUAN/) DUAN D R.
PA (HUJJ/) HU J.
PA (FLOR/) FLORENCE K A.
PA (OLSE/) OLSEN H S.
PA (FISC/) FISCHER C L.
PA (EBNE/) EBNER R.
PA (BREW/) BREWER L A.
PA (MOOR/) MOORE P A.
PA (SHIY/) SHI Y.
PA (LAFL/) LAFLEUR D W.
PA (LIYY/) LI Y.
PA (ZENG/) ZENG Z.
PA (KYAW/) KYAW H.
XX
PI Ruben SM, Rosen CA, Soppet DR, Carter KC, Bednarik DP;
PI Endress GA, Yu G, Ni J, Feng P, Young PE, Greene JM, Ferrie AM;
PI Duan DR, Hu J, Florence KA, Olsen HS, Fischer CL, Ebner R;
PI Brewer LA, Moore PA, Shi Y, Lafleur DW, Li Y, Zeng Z, Kyaw H;
XX
DR WPI; 2003-521800/49.
XX
PT New genes and its encoded prostate cancer antigen proteins, useful for
PT preventing, treating, ameliorating or diagnosing e.g. prostate cancers,
PT thymic hypoplasia, multiple sclerosis, AIDS, angina pectoris or cerebral
PT ischemia.
XX
PS Claim 3; Page 89; 260pp; English.
XX
CC The present invention relates to the isolation of novel human secreted

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CC   proteins and the polynucleotide sequences encoding them. The invention
CC   also discloses vectors, host cells, antibodies, and recombinant methods
CC   for producing human secreted proteins. The polypeptide and polynucleotide
CC   sequences for the secreted proteins are useful for preventing, treating,
CC   ameliorating or diagnosing medical conditions such as hyperproliferative
CC   disorders (e.g. leukaemia or breast cancers), wounds, reproductive
CC   disorders, blood-related disorders (e.g. haemophilia or
CC   thrombocytopaenia), immunodeficiencies (e.g. Wiskott-Aldrich syndrome or
CC   thymic hypoplasia), autoimmune disorders (e.g. graft-versus-host disease,
CC   multiple sclerosis or Hashimoto's thyroiditis), allergies (e.g. asthma),
CC   viral or bacterial or fungal infections (e.g. AIDS or sepsis), renal
CC   disorders (e.g. kidney failure), cardiovascular disorders (e.g. angina
CC   pectoris, cerebral ischaemia or congenital heart defects), respiratory
CC   disorders, neurological disorders (e.g. Alzheimer's disease or
CC   Parkinson's disease), and inflammations (e.g. Crohn's disease). The
CC   polynucleotide or polypeptide may also be used as vaccine adjuvants.
CC   ABO34374-ABO34815 represent human secreted proteins or their fragments.
CC   Note: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from the
CC   USPTO web site at seqdata.uspto.gov/psipsDIDEntry.html
XX
SQ   Sequence 101 AA;

  Query Match             100.0%;  Score 25;  DB 6;  Length 101;
  Best Local Similarity   100.0%;  Pred. No. 6.7e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db         81 LRKED 85


RESULT 32
ADI23469
ID   ADI23469 standard; protein; 101 AA.
XX
AC   ADI23469;
XX
DT   22-APR-2004  (first entry)
XX
DE   Novel human secreted protein fragment seq id 754.
XX
KW   cytostatic; gene therapy; cancer; human; secreted protein.
XX
OS   Homo sapiens.
XX
PN   US2003175858-A1.
XX
PD   18-SEP-2003.
XX
PF   18-JUN-2001; 2001US-00882171.
XX
PR   07-MAR-1997;   97US-0038621P.
PR   07-MAR-1997;   97US-0040162P.
PR   07-MAR-1997;   97US-0040163P.
PR   07-MAR-1997;   97US-0040333P.
PR   07-MAR-1997;   97US-0040334P.
PR   07-MAR-1997;   97US-0040336P.
PR   07-MAR-1997;   97US-0040626P.
PR   11-APR-1997;   97US-0043311P.
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PR   11-APR-1997;   97US-0043313P.
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PR   11-APR-1997;   97US-0043315P.
PR   11-APR-1997;   97US-0043568P.
PR   11-APR-1997;   97US-0043569P.
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PR   11-APR-1997;   97US-0043578P.
PR   11-APR-1997;   97US-0043580P.
PR   11-APR-1997;   97US-0043669P.
PR   11-APR-1997;   97US-0043670P.
PR   11-APR-1997;   97US-0043671P.
PR   11-APR-1997;   97US-0043672P.
PR   11-APR-1997;   97US-0043674P.
PR   23-MAY-1997;   97US-0047492P.
PR   23-MAY-1997;   97US-0047500P.
PR   23-MAY-1997;   97US-0047501P.
PR   23-MAY-1997;   97US-0047502P.
PR   23-MAY-1997;   97US-0047503P.
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PR   23-MAY-1997;   97US-0047586P.
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PR   23-MAY-1997;   97US-0047589P.
PR   23-MAY-1997;   97US-0047590P.
PR   23-MAY-1997;   97US-0047592P.
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PR   23-MAY-1997;   97US-0047596P.
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PR   23-MAY-1997;   97US-0047598P.
PR   23-MAY-1997;   97US-0047599P.
PR   23-MAY-1997;   97US-0047600P.
PR   23-MAY-1997;   97US-0047601P.
PR   23-MAY-1997;   97US-0047612P.
PR   23-MAY-1997;   97US-0047613P.
PR   23-MAY-1997;   97US-0047614P.
PR   23-MAY-1997;   97US-0047615P.
PR   23-MAY-1997;   97US-0047617P.
PR   23-MAY-1997;   97US-0047618P.
PR   23-MAY-1997;   97US-0047632P.
PR   23-MAY-1997;   97US-0047633P.
PR   06-JUN-1997;   97US-0048964P.
PR   06-JUN-1997;   97US-0048974P.
PR   13-JUN-1997;   97US-0049610P.
PR   08-JUL-1997;   97US-0051926P.
PR   16-JUL-1997;   97US-0052874P.
PR   18-AUG-1997;   97US-0055724P.
PR   22-AUG-1997;   97US-0056630P.
PR   22-AUG-1997;   97US-0056631P.
PR   22-AUG-1997;   97US-0056632P.
PR   22-AUG-1997;   97US-0056636P.
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PR   22-AUG-1997;   97US-0056664P.
PR   22-AUG-1997;   97US-0056845P.
PR   22-AUG-1997;   97US-0056862P.
PR   22-AUG-1997;   97US-0056864P.
PR   22-AUG-1997;   97US-0056872P.
PR   22-AUG-1997;   97US-0056874P.
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PR   22-AUG-1997;   97US-0056882P.
PR   22-AUG-1997;   97US-0056884P.
PR   22-AUG-1997;   97US-0056886P.
PR   22-AUG-1997;   97US-0056887P.
PR   22-AUG-1997;   97US-0056888P.
PR   22-AUG-1997;   97US-0056889P.
PR   22-AUG-1997;   97US-0056892P.
PR   22-AUG-1997;   97US-0056893P.
PR   22-AUG-1997;   97US-0056894P.
PR   22-AUG-1997;   97US-0056903P.
PR   22-AUG-1997;   97US-0056908P.
PR   22-AUG-1997;   97US-0056909P.
PR   22-AUG-1997;   97US-0056910P.
PR   22-AUG-1997;   97US-0056911P.
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PR   05-SEP-1997;   97US-0057650P.
PR   05-SEP-1997;   97US-0057669P.
PR   05-SEP-1997;   97US-0057761P.
PR   12-SEP-1997;   97US-0058785P.
PR   09-OCT-1997;   97US-0061660P.
PR   06-MAR-1998;   98WO-US004493.
PR   08-SEP-1998;   98US-00149476.
PR   17-MAR-2000; 2000US-0190068P.
PR   16-MAR-2001; 2001US-00809391.
XX
PA   (RUBE/) RUBEN S M.
PA   (ROSE/) ROSEN C A.
PA   (SOPP/) SOPPET D R.
PA   (CART/) CARTER K C.
PA   (BEDN/) BEDNARIK D P.
PA   (ENDR/) ENDRESS G A.
PA   (YUGG/) YU G.
PA   (NIJJ/) NI J.
PA   (FENG/) FENG P.
PA   (YOUN/) YOUNG P E.
PA   (GREE/) GREENE J M.
PA   (FERR/) FERRIE A M.
PA   (DUAN/) DUAN D R.
PA   (HUJJ/) HU J.
PA   (FLOR/) FLORENCE K A.
PA   (OLSE/) OLSEN H S.
PA   (FISC/) FISCHER C L.
PA   (EBNE/) EBNER R.
PA   (BREW/) BREWER L A.
PA   (MOOR/) MOORE P A.
PA   (SHIY/) SHI Y.
PA   (LAFL/) LAFLEUR D W.
PA   (LIYY/) LI Y.
PA   (ZENG/) ZENG Z.
PA   (KYAW/) KYAW H.
XX
PI   Ruben SM,  Rosen CA,  Soppet DR,  Carter KC,  Bednarik DP;
PI   Endress GA,  Yu G,  Ni J,  Feng P,  Young PE,  Greene JM,  Ferrie AM;
PI   Duan DR,  Hu J,  Florence KA,  Olsen HS,  Fischer CL,  Ebner R;
PI   Brewer LA,  Moore PA,  Shi Y,  Lafleur DW,  Li Y,  Zeng Z,  Kyaw H;
XX
DR   WPI; 2003-898535/82.
XX
PT   New nucleic acid molecule, useful for preparing a medicament for
PT   diagnosing, preventing, treating or ameliorating a medical condition
PT   e.g., cancer.
XX
PS   Disclosure; SEQ ID NO 754; 256pp; English.
XX
CC   The invention describes an isolated nucleic acid comprising a sequence
CC   having 95 % identity with: a polynucleotide fragment of a sequence not
CC   given in the specification, or its allelic variant; a polynucleotide
CC   fragment of the cDNA sequence; a polynucleotide sequence encoding a
CC   polypeptide, or its fragment, domain, epitope or species homologue; or a
CC   polynucleotide that hybridises under stringent conditions to any one of
CC   the sequences of (a)-(c). The nucleic acid is useful for preparing a
CC   medicament for diagnosing, preventing, treating or ameliorating a medical
CC   condition e.g., cancer. The is the amino acid sequence of a fragment of a
CC   novel human secreted protein of the invention.
XX
SQ   Sequence 101 AA;

  Query Match             100.0%;  Score 25;  DB 7;  Length 101;
  Best Local Similarity   100.0%;  Pred. No. 6.7e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db         81 LRKED 85


RESULT 33
ADH74471
ID   ADH74471 standard; protein; 101 AA.
XX
AC   ADH74471;
XX
DT   25-MAR-2004  (first entry)
XX
DE   Human secreted protein fragment #126.
XX
KW   human; secreted protein; cancer; haematopoietic disorder;
KW   endocrine disorder; immune system disease; inflammatory disorder.
XX
OS   Homo sapiens.
XX
PN   US2003225248-A1.
XX
PD   04-DEC-2003.
XX
PF   10-JUN-2002; 2002US-00164861.
XX
PR   07-MAR-1997;   97US-0038621P.
PR   07-MAR-1997;   97US-0040161P.
PR   07-MAR-1997;   97US-0040162P.
PR   07-MAR-1997;   97US-0040163P.
PR   07-MAR-1997;   97US-0040333P.
PR   07-MAR-1997;   97US-0040334P.
PR   07-MAR-1997;   97US-0040336P.
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PR   23-MAY-1997;   97US-0047601P.
PR   23-MAY-1997;   97US-0047612P.
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PR   23-MAY-1997;   97US-0047618P.
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PR 06-JUN-1997; 97US-0048964P.
PR 06-JUN-1997; 97US-0048974P.
PR 13-JUN-1997; 97US-0049610P.
PR 08-JUL-1997; 97US-0051926P.
PR 16-JUL-1997; 97US-0052874P.
PR 18-AUG-1997; 97US-0055724P.
PR 22-AUG-1997; 97US-0056630P.
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PR 22-AUG-1997; 97US-0056845P.
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PR 22-AUG-1997; 97US-0056892P.
PR 22-AUG-1997; 97US-0056893P.
PR 22-AUG-1997; 97US-0056894P.
PR 22-AUG-1997; 97US-0056903P.
PR 22-AUG-1997; 97US-0056908P.
PR 22-AUG-1997; 97US-0056909P.
PR 22-AUG-1997; 97US-0056910P.
PR 22-AUG-1997; 97US-0056911P.
PR 05-SEP-1997; 97US-0057650P.
PR 05-SEP-1997; 97US-0057669P.
PR 05-SEP-1997; 97US-0057761P.
PR 12-SEP-1997; 97US-0058785P.
PR 02-OCT-1997; 97US-0061060P.
PR 06-MAR-1998; 98WO-US004493.
PR 08-SEP-1998; 98US-00149476.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Ruben SM, Rosen CA, Soppet DR, Carter KC, Bednarik DP;
PI Endress GA, Yu G, Ni J, Feng P, Young PE, Greene JM, Ferrie AM;
PI Duan R, Hu J, Florence KA, Olsen HS, Fischer CL, Ebner R;
PI Brewer LA, Moore PA, Shi Y, Lafleur DW, Li Y, Zeng Z, Kyaw H;
XX
DR WPI; 2004-131264/13.
XX
PT Isolated nucleic acid molecules encoding human secreted proteins, useful
PT for preventing, diagnosing and treating disorders associated with
PT aberrant expression and activity.
XX
PS Disclosure; SEQ ID NO 754; 142pp; English.
XX
CC The invention relates to isolated nucleic acid molecules and the human
CC secreted proteins (SPs) they encode. The proteins and nucleic acids may
CC be used in the prevention, diagnosis and treatment of diseases associated
CC with inappropriate SP expression e.g. cancer, haematopoietic disorders,
CC endocrine disorders, diseases of the immune system, inflammatory
CC disorders and many others. Full details of disorders that may be
CC prevented, diagnosed and/or treated by the above methods are given in the
CC specification. The nucleic acid molecules may be used to produce their
CC proteins. The nucleic acid and it's complementary sequences may also be
CC used as DNA probes in diagnostic assays to detect and quantitate the
CC presence of similar nucleic acids in samples, and therefore which
CC patients may be in need of restorative therapy. The SPs may also be used
CC as antigens in the production of antibodies against the proteins and in
CC assays to identify modulators of SP expression and activity. The anti-SP
CC antibodies and antagonists may also be used to down regulate expression
CC and activity. The anti-SP antibodies may also be used as diagnostic
CC agents for detecting the presence of the proteins in samples (e.g. by
CC enzyme linked immunosorbant assay (ELISA)). The present sequence
CC represents the amino acid sequence of a human secreted protein fragment.
XX
SQ Sequence 101 AA;

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  Query Match             100.0%;  Score 25;  DB 8;  Length 101;
  Best Local Similarity   100.0%;  Pred. No. 6.7e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db         81 LRKED 85
```

RESULT 34
AAU08754
ID AAU08754 standard; protein; 103 AA.
XX
AC AAU08754;
XX
DT 03-JAN-2002 (first entry)
XX
DE Human insulin-like growth factor binding protein-like polypeptide #1.
XX
KW Insulin-like growth factor binding protein; IGFBP; human; cancer;
KW female reproduction; embryo development; food supplement; gene mapping;
KW medical imaging; autoimmune disease; nervous system disease; cytostatic;
KW cerebrovascular disease; wound healing; gynaecological; antiinfertility;
KW gene therapy; vulnerary.
XX
OS Homo sapiens.
XX
PN WO200175064-A2.
XX
PD 11-OCT-2001.
XX
PF 30-MAR-2001; 2001WO-US010462.
XX
PR 31-MAR-2000; 2000US-00540217.
PR 23-AUG-2000; 2000US-00649167.
PR 14-FEB-2001; 2001US-00784748.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Yamazaki V, Asundi V, Drmanac RT, Liu C, Tang YT;
XX
DR WPI; 2001-626426/72.
DR N-PSDB; AAS14769.
XX
PT New insulin-like growth factor binding protein-like polypeptide and
PT encoding polynucleotides, useful for treating cancer, infertility, and
PT arthritis, and for increasing wound healing.
XX
PS Claim 9; Page 107-108; 130pp; English.
XX
CC The invention relates to isolated insulin-like growth factor binding
CC protein-like (IGFBP-like) polypeptides and their associated
CC polynucleotides. The DNA sequences can be detected by contacting a sample
CC with nucleic acid primers that anneal to the DNA and amplifying a product
CC comprising a portion of the sequence. Detection of the product indicates
CC the presence of DNA. The protein sequences can be detected by contacting
CC a sample with a compound that binds to the polypeptide to form a complex.
CC Detection of the complex indicates the presence of the protein. The
CC sequences of the invention are useful for treating a subject having a
CC need to inhibit activity or expression of IGFBP-like sequences. This

CC involves administering an antagonist of the polypeptide, a polynucleotide
CC that inhibits the expression of the nucleotide sequence or a therapeutic
CC amount of the polypeptide that competes for its ligand and a carrier. The
CC sequences are useful in treatment of disorders such as cancer, or to
CC promote female reproductive health and embryo development. They can also
CC be used in food supplements, in medical imaging and in gene mapping. The
CC sequences can be used in the treatment and prevention of autoimmune
CC diseases, nervous system diseases, cerebrovascular diseases and
CC infertility and for enhancing wound healing. This sequence represents a
CC human IGFBP-like polypeptide
XX
SQ Sequence 103 AA;

Query Match 100.0%; Score 25; DB 4; Length 103;
Best Local Similarity 100.0%; Pred. No. 6.8e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LRKED 5
|||||
Db 88 LRKED 92

RESULT 35
ABG01682
ID ABG01682 standard; protein; 103 AA.
XX
AC ABG01682;
XX
DT 13-FEB-2002 (first entry)
XX
DE Novel human diagnostic protein #1673.
XX
KW Human; chromosome mapping; gene mapping; gene therapy; forensic;
KW food supplement; medical imaging; diagnostic; genetic disorder.
XX
OS Homo sapiens.
XX
PN WO200175067-A2.
XX
PD 11-OCT-2001.
XX
PF 30-MAR-2001; 2001WO-US008631.
XX
PR 31-MAR-2000; 2000US-00540217.
PR 23-AUG-2000; 2000US-00649167.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Drmanac RT, Liu C, Tang YT;
XX
DR WPI; 2001-639362/73.
DR N-PSDB; AAS65869.
XX
PT New isolated polynucleotide and encoded polypeptides, useful in
PT diagnostics, forensics, gene mapping, identification of mutations
PT responsible for genetic disorders or other traits and to assess
PT biodiversity.
XX
PS Claim 20; SEQ ID NO 32041; 103pp; English.
XX
CC The invention relates to isolated polynucleotide (I) and polypeptide (II)
CC sequences. (I) is useful as hybridisation probes, polymerase chain
CC reaction (PCR) primers, oligomers, and for chromosome and gene mapping,
CC and in recombinant production of (II). The polynucleotides are also used
CC in diagnostics as expressed sequence tags for identifying expressed
CC genes. (I) is useful in gene therapy techniques to restore normal
CC activity of (II) or to treat disease states involving (II). (II) is
CC useful for generating antibodies against it, detecting or quantitating a
CC polypeptide in tissue, as molecular weight markers and as a food
CC supplement. (II) and its binding partners are useful in medical imaging
CC of sites expressing (II). (I) and (II) are useful for treating disorders
CC involving aberrant protein expression or biological activity. The
CC polypeptide and polynucleotide sequences have applications in
CC diagnostics, forensics, gene mapping, identification of mutations
CC responsible for genetic disorders or other traits to assess biodiversity
CC and to produce other types of data and products dependent on DNA and
CC amino acid sequences. ABG00010-ABG30377 represent novel human diagnostic
CC amino acid sequences of the invention. Note: The sequence data for this
CC patent did not appear in the printed specification, but was obtained in
CC electronic format directly from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 103 AA;

Query Match 100.0%; Score 25; DB 4; Length 103;
Best Local Similarity 100.0%; Pred. No. 6.8e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LRKED 5
|||||
Db 88 LRKED 92

RESULT 36
ADK41570
ID ADK41570 standard; protein; 103 AA.
XX
AC ADK41570;
XX
DT 06-MAY-2004 (first entry)
XX
DE Anti-cell surface antigen related protein #42.
XX
KW cytostatic; immunosuppressive; gene therapy; anti-cell surface antigen;
KW CD84Hyl; alpha2MHy; IgFBP-7Hyl; Toll-like receptor 9; VpreB1; antibody;
KW lymphoma; cancer; autoimmune disorder; systemic lupus erythematosus;
KW pericarditis lupus; Sjoegren's syndrome; Hashimoto thyroiditis;
KW transplanted tissue rejection; carcinoma; leukemia.
XX
OS Unidentified.
XX
PN WO2003068935-A2.
XX
PD 21-AUG-2003.
XX
PF 14-FEB-2003; 2003WO-US004515.
XX
PR 14-FEB-2002; 2002US-00077676.
PR 15-FEB-2002; 2002US-00078080.
PR 27-FEB-2002; 2002US-00087137.
PR 06-MAR-2002; 2002US-00092985.
PR 14-MAY-2002; 2002US-00146619.
PR 12-AUG-2002; 2002US-00218325.
PR 22-NOV-2002; 2002US-00302444.
PR 19-DEC-2002; 2002US-00327413.
PR 19-DEC-2002; 2002US-00327491.
XX
PA (NUVE-) NUVELO INC.
XX
PI Emtage P, Dedera DA, Boyle BJ, Wang J, Chen H, Wan C;
PI Yamazaki V, Asundi V, Liu C, Tang YT, Drmanac RT;
XX
DR WPI; 2003-679633/64.
XX
PT New pharmaceutical composition comprising an anti-cell surface antigen
PT consisting of CD84Hyl, alpha2MHy, IgFBP-7Hyl, Toll-like receptor 9 or
PT VpreB1 antibody, useful for diagnosing or treating e.g., cancer or
PT autoimmune disorders.
XX
PS Disclosure; SEQ ID NO 59; 145pp; English.
XX
CC The invention relates to a new pharmaceutical composition comprising an
CC anti-cell surface antigen (CSA), consisting of CD84Hyl, alpha2MHy, IgFBP-
CC 7Hyl, Toll-like receptor 9 (TLR9) or VpreB1, antibody specific for cells
CC that cause a disease e.g., B-cell lymphoma, where the antibody
CC specifically binds to a polypeptide having an amino acid sequence not

CC given in the specification or its extracellular portion. The
CC pharmaceutical composition is useful for diagnosing or treating cancer,
CC autoimmune disorders, systemic lupus erythematosus, pericarditis lupus,
CC Sjoegren's syndrome, Hashimoto thyroiditis or rejection of transplanted
CC tissues or organs. This sequence corresponds to a protein used in the
CC invention. (Note: The sequence data for this patent did form part of the
CC printed specification, but was obtained in electronic format directly
CC form WIPO at ftp.wipo.int/pub/published_pct_sequences).
XX
SQ Sequence 103 AA;

Query Match 100.0%; Score 25; DB 7; Length 103;
Best Local Similarity 100.0%; Pred. No. 6.8e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LRKED 5
|||||
Db 88 LRKED 92

RESULT 37
AAU18083
ID AAU18083 standard; protein; 105 AA.
XX
AC AAU18083;
XX
DT 07-NOV-2001 (first entry)
XX
DE Human immunoglobulin polypeptide SEQ ID No 228.
XX
KW Immunoglobulin; signal transduction pathway protein; cancer;
KW antisense therapy; gene therapy; neurological disorder; renal disorder;
KW cardiovascular disorder; gastrointestinal disorder; pulmonary disorder;
KW reproductive disorder; immune system disorder; proliferative disorder;
KW muscular disorder.
XX
OS Homo sapiens.
XX
PN WO200155315-A2.
XX
PD 02-AUG-2001.
XX
PF 17-JAN-2001; 2001WO-US001326.
XX
PR 31-JAN-2000; 2000US-0179065P.
PR 04-FEB-2000; 2000US-0180628P.
PR 24-FEB-2000; 2000US-0184664P.
PR 02-MAR-2000; 2000US-0186350P.
PR 16-MAR-2000; 2000US-0189874P.
PR 17-MAR-2000; 2000US-0190076P.
PR 18-APR-2000; 2000US-0198123P.
PR 19-MAY-2000; 2000US-0205515P.
PR 07-JUN-2000; 2000US-0209467P.
PR 28-JUN-2000; 2000US-0214886P.
PR 30-JUN-2000; 2000US-0215135P.
PR 07-JUL-2000; 2000US-0216647P.
PR 07-JUL-2000; 2000US-0216880P.
PR 11-JUL-2000; 2000US-0217487P.
PR 11-JUL-2000; 2000US-0217496P.
PR 14-JUL-2000; 2000US-0218290P.
PR 26-JUL-2000; 2000US-0220963P.
PR 26-JUL-2000; 2000US-0220964P.
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PR 14-AUG-2000; 2000US-0225213P.
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PR 14-AUG-2000; 2000US-0225266P.
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PR 22-AUG-2000; 2000US-0227182P.
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PR 06-SEP-2000; 2000US-0230438P.
PR 08-SEP-2000; 2000US-0231242P.
PR 08-SEP-2000; 2000US-0231243P.
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PR 08-SEP-2000; 2000US-0232081P.
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PR 14-SEP-2000; 2000US-0232398P.
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PR 14-SEP-2000; 2000US-0232400P.
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PR 21-SEP-2000; 2000US-0234223P.
PR 21-SEP-2000; 2000US-0234274P.
PR 25-SEP-2000; 2000US-0234997P.
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PR 26-SEP-2000; 2000US-0235484P.
PR 27-SEP-2000; 2000US-0235834P.
PR 27-SEP-2000; 2000US-0235836P.
PR 29-SEP-2000; 2000US-0236327P.
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PR 02-OCT-2000; 2000US-0237037P.
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PR 13-OCT-2000; 2000US-0239935P.
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PR 20-OCT-2000; 2000US-0241221P.
PR 20-OCT-2000; 2000US-0241785P.
PR 20-OCT-2000; 2000US-0241786P.
PR 20-OCT-2000; 2000US-0241787P.
PR 20-OCT-2000; 2000US-0241808P.
PR 20-OCT-2000; 2000US-0241809P.
PR 20-OCT-2000; 2000US-0241826P.
PR 01-NOV-2000; 2000US-0244617P.
PR 08-NOV-2000; 2000US-0246474P.
PR 08-NOV-2000; 2000US-0246475P.
PR 08-NOV-2000; 2000US-0246476P.
PR 08-NOV-2000; 2000US-0246477P.
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PR 08-NOV-2000; 2000US-0246523P.
PR 08-NOV-2000; 2000US-0246524P.
PR 08-NOV-2000; 2000US-0246525P.
PR 08-NOV-2000; 2000US-0246526P.
PR 08-NOV-2000; 2000US-0246527P.
PR 08-NOV-2000; 2000US-0246528P.
PR 08-NOV-2000; 2000US-0246532P.
PR 08-NOV-2000; 2000US-0246609P.
PR 08-NOV-2000; 2000US-0246610P.

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PR   08-NOV-2000; 2000US-0246611P.
PR   08-NOV-2000; 2000US-0246613P.
PR   17-NOV-2000; 2000US-0249207P.
PR   17-NOV-2000; 2000US-0249208P.
PR   17-NOV-2000; 2000US-0249209P.
PR   17-NOV-2000; 2000US-0249210P.
PR   17-NOV-2000; 2000US-0249211P.
PR   17-NOV-2000; 2000US-0249212P.
PR   17-NOV-2000; 2000US-0249213P.
PR   17-NOV-2000; 2000US-0249214P.
PR   17-NOV-2000; 2000US-0249215P.
PR   17-NOV-2000; 2000US-0249216P.
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PR   17-NOV-2000; 2000US-0249244P.
PR   17-NOV-2000; 2000US-0249245P.
PR   17-NOV-2000; 2000US-0249264P.
PR   17-NOV-2000; 2000US-0249265P.
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PR   17-NOV-2000; 2000US-0249299P.
PR   17-NOV-2000; 2000US-0249300P.
PR   01-DEC-2000; 2000US-0250160P.
PR   01-DEC-2000; 2000US-0250391P.
PR   05-DEC-2000; 2000US-0251030P.
PR   05-DEC-2000; 2000US-0251988P.
PR   05-DEC-2000; 2000US-0256719P.
PR   06-DEC-2000; 2000US-0251479P.
PR   08-DEC-2000; 2000US-0251856P.
PR   08-DEC-2000; 2000US-0251868P.
PR   08-DEC-2000; 2000US-0251869P.
PR   08-DEC-2000; 2000US-0251989P.
PR   08-DEC-2000; 2000US-0251990P.
PR   11-DEC-2000; 2000US-0254097P.
PR   05-JAN-2001; 2001US-0259678P.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Rosen CA,  Barash SC,  Ruben SM;
XX
DR   WPI; 2001-457725/49.
DR   N-PSDB; AAS28871.
XX
PT   Isolated novel immunoglobulin polypeptide for monitoring the presence and
PT   progression of diseases and for diagnosis.
XX
PS   Claim 11; SEQ ID NO 228; 551pp; English.
XX
CC   Sequences AAU17977-AAU18087 represent immunoglobulin polypeptides of the
CC   invention. The polypeptides and their associated polynucleotides can be
CC   used to diagnose a pathological condition or a susceptibility to a
CC   pathological condition in a subject by determining the presence or
CC   absence of a mutation in a DNA sequence or determining the presence or
CC   amount of expression of the protein. Alternatively the identification of
CC   a binding partner to a sequence allows determination of changes in
CC   protein activity. The sequences can be used as research tools for
CC   receptors or other signal transduction pathway proteins that interact
CC   with the polypeptides of the invention and can be used to treat, prevent
CC   or diagnose various types of disorders such as neurological disorders,
CC   cardiovascular disorders, gastrointestinal disorders, reproductive
CC   disorders, immune system disorders, renal disorders, muscular disorders,
CC   pulmonary disorders, proliferative disorders and cancer. Note: The
CC   sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 105 AA;

  Query Match             100.0%;  Score 25;  DB 4;  Length 105;
  Best Local Similarity   100.0%;  Pred. No. 6.9e+02;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 LRKED 5
              |||||
Db         31 LRKED 35


RESULT 38
AAM91611
ID   AAM91611 standard; protein; 105 AA.
XX
AC   AAM91611;
XX
DT   07-NOV-2001  (first entry)
XX
DE   Human immune/haematopoietic antigen SEQ ID NO:19204.
XX
KW   Human; immune; haematopoietic; immune/haematopoietic antigen; cancer;
KW   cytostatic; gene therapy; vaccine; metastasis.
XX
OS   Homo sapiens.
XX
PN   WO200157182-A2.
XX
PD   09-AUG-2001.
XX
PF   17-JAN-2001; 2001WO-US001354.
XX
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PR 08-DEC-2000; 2000US-0251990P.
PR 11-DEC-2000; 2000US-0254097P.
PR 05-JAN-2001; 2001US-0259678P.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Barash SC, Ruben SM;
XX
DR WPI; 2001-483426/52.
DR N-PSDB; AAK64392.
XX
PT Nucleic acids encoding human immune/hematopoietic antigen polypeptides,
PT useful for preventing, diagnosing and/or treating cancers and metastasis.
XX
PS Claim 11; SEQ ID NO 19204; 3071pp + Sequence Listing; English.
XX
CC AAK54951 to AAK64702 encode the human immune/haematopoietic antigen (I)
CC amino acid sequences given in AAM82170 to AAM91921. (I) have cytostatic
CC activity, and can be used in gene therapy and vaccine production. (I)
CC proteins and polynucleotides may be used in the prevention, diagnosis and
CC treatment of diseases associated with inappropriate (I) expression. For
CC example, they may be used to treat disorders associated with decreased
CC expression by rectifying mutations or deletions in a patient's genome
CC that affect the activity of (I) by expressing inactive proteins or to
CC supplement the patients own production of (I). Additionally, (I)
CC polynucleotides may be used to produce the secreted (I), by inserting the
CC nucleic acids into a host cell and culturing the cell to express the
CC protein. (I) proteins and polynucleotides may be used to prevent,
CC diagnose and treat immune/haematopoietic-related diseases, especially
CC cancers and cancer metastases of haematopoietic-derived cells. AAK64703
CC to AAK87694 represent human immune/haematopoietic antigen genomic
CC sequences from the present invention. AAK54942 to AAK54950 and AAM82169
CC represent sequences used in the exemplification of the present invention
XX
SQ Sequence 105 AA;

Query Match 100.0%; Score 25; DB 4; Length 105;
Best Local Similarity 100.0%; Pred. No. 6.9e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LRKED 5
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Db 31 LRKED 35

RESULT 39
ABB10437
ID ABB10437 standard; protein; 105 AA.
XX
AC ABB10437;
XX
DT 10-JAN-2002 (first entry)
XX
DE Human cDNA SEQ ID NO: 745.
XX
KW Human; gene therapy; neural disorder; immune system disorder;
KW muscular disorder; reproductive disorder; gastrointestinal disorder;
KW pulmonary disorder; cardiovascular disorder; renal disorder;
KW proliferative disorder; inflammation.
XX
OS Homo sapiens.
XX

PN WO200154474-A2.
XX
PD 02-AUG-2001.
XX
PF 17-JAN-2001; 2001WO-US001349.
XX
PR 31-JAN-2000; 2000US-0179065P.
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PR 05-JAN-2001; 2001US-0259678P.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Barash SC, Ruben SM;

XX
DR WPI; 2001-476161/51.
DR N-PSDB; ABA06659.
XX
PT Isolated nucleic acid molecule encoding an inflammation-associated
PT polypeptide is used in preventing, treating or ameliorating a medical
PT condition.
XX
PS Claim 11; SEQ ID NO 745; 859pp + Sequence Listing; English.
XX
CC The present invention provides human cDNAs, proteins and related genomic
CC DNAs. These can be used in the treatment of neural, immune system,
CC muscular, reproductive, gastrointestinal, pulmonary, cardiovascular,
CC renal and proliferative disorders and inflammation. The present sequence
CC is a protein of the invention
XX
SQ Sequence 105 AA;

Query Match 100.0%; Score 25; DB 4; Length 105;
Best Local Similarity 100.0%; Pred. No. 6.9e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db 31 LRKED 35

RESULT 40
ABP67024
ID ABP67024 standard; protein; 105 AA.
XX
AC ABP67024;
XX
DT 09-DEC-2002 (first entry)
XX
DE Human polypeptide SEQ ID NO 745.
XX
KW Human; nootropic; neuroprotective; cytostatic; dermatological; virucide;
KW immunosuppressive; antiinflammatory; anti-HIV; antibacterial; vulnerary;
KW antiparkinsonian; antisickling; antianaemic; antiarthritic; cancer;
KW antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;
KW antiallergic; antidiabetic; antiulcer; anticonvulsant; antifungal;
KW antiparasitic; cardiant; immune disorder; cardiovascular disorder;
KW neurological disease; infection; nephrotropic; gene therapy; vaccine.
XX
OS Homo sapiens.
XX
PN US2002090672-A1.
XX
PD 11-JUL-2002.
XX
PF 17-JAN-2001; 2001US-00764853.
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PR 31-JAN-2000; 2000US-0179065P.
PR 04-FEB-2000; 2000US-0180628P.
PR 28-JUN-2000; 2000US-0214886P.
PR 07-JUL-2000; 2000US-0216647P.
PR 07-JUL-2000; 2000US-0216880P.
PR 11-JUL-2000; 2000US-0217487P.
PR 11-JUL-2000; 2000US-0217496P.
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XX
PA (ROSE/) ROSEN C A.
PA (RUBE/) RUBEN S M.
PA (BARA/) BARASH S C.
XX
PI Rosen CA, Ruben SM, Barash SC;
XX
DR WPI; 2002-681727/73.
DR N-PSDB; ABV83996.
XX
PT Novel polypeptide useful for diagnosis, prognosis, prevention, and
PT treatment of immune, hyperproliferative, renal, respiratory,
PT cardiovascular, reproductive, endocrine, gastrointestinal and
PT neurological disorders.
XX
PS Claim 11; SEQ ID NO 745; 369pp + Sequence Listing; English.
XX
CC The invention relates to novel genes (ABV83682-ABV84101) and proteins
CC (ABP66710-ABP67129) useful for preventing, treating or ameliorating
CC medical conditions e.g. by protein or gene therapy. The genes are
CC isolated from a range of human tissues disclosed in the specification.
CC The nucleic acids, proteins, antibodies and (ant)agonists are useful in
CC the diagnosis, treatment and prevention of: (a) cancer, e.g. breast and
CC ovarian cancer and other cancers of the adrenal gland, bone, bone marrow,
CC breast, gastrointestinal tract, liver, lung, or urogenital; (b) immune
CC disorders e.g. Addison's disease, allergies, autoimmune haemolytic
CC anaemia, autoimmune thyroiditis, diabetes mellitus, Crohn's disease,
CC multiple sclerosis, rheumatoid arthritis and ulcerative colitis; (c)
CC cardiovascular disorders such as myocardial ischaemias; (d) wound healing
CC ; (e) neurological diseases e.g. cerebral anoxia and epilepsy; and (f)
CC infectious diseases such as viral, bacterial, fungal and parasitic
CC infections. Note: The sequence data for this patent did not form part of
CC the printed specification, but was obtained in electronic format directly
CC from WIPO at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 105 AA;

Query Match 100.0%; Score 25; DB 5; Length 105;
Best Local Similarity 100.0%; Pred. No. 6.9e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LRKED 5
|||||

Db 31 LRKED 35

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GenCore version 5.1.6

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Post-processing: Minimum Match 0%
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Listing first 150 summaries

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SUMMARIES

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2	33	100.0	534	2	Q7PPB0	Q7ppb0 anopheles g
3	33	100.0	616	2	Q97W54	Q97w54 sulfolobus
4	33	100.0	764	1	PIGR_HUMAN	P01833 homo sapien
5	33	100.0	764	2	Q8IZY7	Q8izy7 homo sapien
6	33	100.0	790	2	Q9KW22	Q9kw22 xanthomonas
7	33	100.0	802	2	Q6F5A9	Q6f5a9 xanthomonas
8	33	100.0	802	2	Q6QJ83	Q6qj83 xanthomonas
9	33	100.0	805	2	Q83XD5	Q83xd5 xanthomonas
10	33	100.0	806	2	O33967	O33967 xanthomonas
11	33	100.0	824	2	Q8PQD2	Q8pqd2 xanthomonas
12	30	90.9	95	2	Q72K96	Q72k96 thermus the
13	30	90.9	140	2	Q9VA81	Q9va81 drosophila
14	30	90.9	143	2	Q92WR8	Q92wr8 rhizobium m
15	30	90.9	193	1	TNF7_HUMAN	P32970 homo sapien
16	30	90.9	277	2	Q89RP8	Q89rp8 bradyrhizob
17	30	90.9	303	2	Q84709	Q84709 pea enation
18	30	90.9	360	2	Q8YYK8	Q8yyk8 anabaena sp
19	30	90.9	415	2	Q7YQV0	Q7yqv0 perameles g
20	30	90.9	420	2	Q8TX77	Q8tx77 methanopyru
21	30	90.9	425	2	O18858	O18858 echymipera
22	30	90.9	576	2	Q6QT50	Q6qt50 streptococc
23	30	90.9	640	1	CAN5_HUMAN	O15484 homo sapien
24	30	90.9	680	2	Q6ZRM8	Q6zrm8 homo sapien
25	30	90.9	722	2	Q99MW4	Q99mw4 mus musculu
26	30	90.9	722	2	Q6PHT2	Q6pht2 mus musculu
27	30	90.9	729	2	Q79E26	Q79e26 agrobacteri
28	30	90.9	729	2	Q8UAR4	Q8uar4 agrobacteri
29	30	90.9	752	2	Q853F2	Q853f2 mycobacteri
30	30	90.9	845	2	Q8BYC8	Q8byc8 mus musculu
31	30	90.9	861	2	Q44418	Q44418 agrobacteri
32	30	90.9	1040	1	AXO1_MOUSE	Q61330 mus musculu
33	30	90.9	1040	1	AXO1_RAT	P22063 rattus norv
34	30	90.9	1133	2	Q8QNP4	Q8qnp4 ectocarpus
35	29	87.9	121	2	Q6AR76	Q6ar76 desulfotale
36	29	87.9	181	2	Q6Y7H6	Q6y7h6 anaplasma p
37	29	87.9	212	2	Q9HY46	Q9hy46 pseudomonas
38	29	87.9	217	2	O67058	O67058 aquifex aeo
39	29	87.9	218	2	Q8L361	Q8l361 streptococc
40	29	87.9	248	1	PYRH_CHLPN	Q9z7k7 chlamydia p
41	29	87.9	250	2	Q8DX96	Q8dx96 streptococc
42	29	87.9	250	2	Q8E319	Q8e319 streptococc
43	29	87.9	251	2	Q73YZ5	Q73yz5 mycobacteri
44	29	87.9	254	2	Q6CZ57	Q6cz57 erwinia car
45	29	87.9	269	2	Q6D6X3	Q6d6x3 erwinia car
46	29	87.9	291	2	Q7MQP6	Q7mqp6 wolinella s
47	29	87.9	315	2	Q6YPP2	Q6ypp2 onion yello
48	29	87.9	316	2	Q9D6T4	Q9d6t4 mus musculu
49	29	87.9	347	2	Q6AR40	Q6ar40 desulfotale
50	29	87.9	359	2	Q9NSM2	Q9nsm2 homo sapien
51	29	87.9	362	2	Q6D968	Q6d968 erwinia car
52	29	87.9	380	2	Q7Q8B6	Q7q8b6 anopheles g
53	29	87.9	397	2	Q8UW16	Q8uw16 lapemis har
54	29	87.9	430	2	Q9VML8	Q9vml8 drosophila
55	29	87.9	483	2	Q6M9K2	Q6m9k2 parachlamyd
56	29	87.9	487	2	Q9XXR6	Q9xxr6 caenorhabdi
57	29	87.9	490	2	Q8I4C7	Q8i4c7 caenorhabdi
58	29	87.9	490	2	Q64RF1	Q64rf1 bacteroides
59	29	87.9	542	2	Q7VNT0	Q7vnt0 haemophilus
60	29	87.9	547	2	O60364	O60364 homo sapien
61	29	87.9	564	2	Q9LNH9	Q9lnh9 arabidopsis
62	29	87.9	568	2	Q7M7Z7	Q7m7z7 wolinella s
63	29	87.9	592	2	O74055	O74055 cenarchaeum
64	29	87.9	611	2	P74960	P74960 shewanella
65	29	87.9	625	2	Q64V35	Q64v35 bacteroides
66	29	87.9	626	2	Q7XWH6	Q7xwh6 oryza sativ
67	29	87.9	657	2	Q8S0A8	Q8s0a8 oryza sativ
68	29	87.9	664	2	Q6NQ63	Q6nq63 arabidopsis
69	29	87.9	732	2	Q9K6S0	Q9k6s0 bacillus ha
70	29	87.9	743	2	Q9H0K2	Q9h0k2 homo sapien
71	29	87.9	774	2	Q96IC2	Q96ic2 homo sapien
72	29	87.9	774	2	Q9BXH9	Q9bxh9 homo sapien
73	29	87.9	778	2	Q8SRQ9	Q8srq9 encephalito
74	29	87.9	921	2	Q8PBA6	Q8pba6 xanthomonas
75	29	87.9	929	2	Q82UN8	Q82un8 nitrosomona
76	29	87.9	1270	2	Q19736	Q19736 caenorhabdi
77	29	87.9	1291	2	Q19734	Q19734 caenorhabdi
78	29	87.9	1307	2	O43138	O43138 aspergillus
79	29	87.9	1318	2	Q19733	Q19733 caenorhabdi
80	29	87.9	1327	2	Q19735	Q19735 caenorhabdi
81	28	84.8	46	2	Q8FBK6	Q8fbk6 escherichia
82	28	84.8	70	2	P97133	P97133 pseudomonas
83	28	84.8	79	2	Q8PKI5	Q8pki5 xanthomonas
84	28	84.8	86	2	Q857R7	Q857r7 mycobacteri
85	28	84.8	88	2	P72229	P72229 pseudomonas
86	28	84.8	90	2	P72228	P72228 pseudomonas
87	28	84.8	91	2	Q6ALJ0	Q6alj0 desulfotale
88	28	84.8	92	2	O85814	O85814 pseudomonas
89	28	84.8	104	2	O59277	O59277 pyrococcus
90	28	84.8	108	2	Q7RUW0	Q7ruw0 neurospora
91	28	84.8	119	1	RBFA_BUCBP	P59411 buchnera ap
92	28	84.8	123	2	Q9XWX2	Q9xwx2 caenorhabdi
93	28	84.8	126	2	Q93AJ6	Q93aj6 uncultured
94	28	84.8	129	2	Q9XUL8	Q9xul8 caenorhabdi
95	28	84.8	143	2	Q9S842	Q9s842 arabidopsis
96	28	84.8	153	2	Q6N516	Q6n516 rhodopseudo
97	28	84.8	154	2	Q9X437	Q9x437 helicobacte
98	28	84.8	155	2	O24920	O24920 helicobacte
99	28	84.8	156	2	Q9I5W7	Q9i5w7 pseudomonas
100	28	84.8	158	2	Q96U01	Q96u01 neurospora
101	28	84.8	160	2	Q9X438	Q9x438 helicobacte
102	28	84.8	160	2	Q6LR05	Q6lr05 photobacter
103	28	84.8	163	2	Q88JC1	Q88jc1 pseudomonas
104	28	84.8	182	1	APT_BORPE	Q7w089 bordetella

105	28	84.8	182	2	Q66CH1	Q66ch1 yersinia ps
106	28	84.8	182	2	Q8Z7Z3	Q8z7z3 salmonella
107	28	84.8	182	2	Q8ZG97	Q8zg97 yersinia pe
108	28	84.8	182	2	Q8ZQB4	Q8zqb4 salmonella
109	28	84.8	183	2	Q6WB81	Q6wb81 alcaligenes
110	28	84.8	184	2	Q9RLI6	Q9rli6 pseudomonas
111	28	84.8	188	2	O42842	O42842 schizosacch
112	28	84.8	191	1	APT_BORBR	Q7wey7 bordetella
113	28	84.8	191	1	APT_BORPA	Q7w3l2 bordetella
114	28	84.8	194	2	Q8GZW5	Q8gzw5 oryza sativ
115	28	84.8	195	2	Q9FWD5	Q9fwd5 oryza sativ
116	28	84.8	196	2	Q6AC14	Q6ac14 leifsonia x
117	28	84.8	210	2	Q8HZH0	Q8hzh0 macaca sp.
118	28	84.8	210	2	Q8HZH1	Q8hzh1 pongo pygma
119	28	84.8	210	2	Q8HZH2	Q8hzh2 gorilla gor
120	28	84.8	215	2	Q825C3	Q825c3 streptomyce
121	28	84.8	216	2	Q7NKX4	Q7nkx4 gloeobacter
122	28	84.8	216	2	Q7SXM9	Q7sxm9 brachydanio
123	28	84.8	217	2	Q9N183	Q9n183 macaca fusc
124	28	84.8	218	2	Q9F1Q2	Q9f1q2 thermus the
125	28	84.8	219	2	Q9EUE8	Q9eue8 salmonella
126	28	84.8	219	2	Q72II7	Q72ii7 thermus the
127	28	84.8	237	2	Q84G09	Q84g09 streptomyce
128	28	84.8	238	2	Q9RZ35	Q9rz35 deinococcus
129	28	84.8	241	1	NGF_CAVPO	P19093 cavia porce
130	28	84.8	241	1	NGF_HUMAN	P01138 homo sapien
131	28	84.8	241	1	NGF_MOUSE	P01139 mus musculu
132	28	84.8	241	1	NGF_PANTR	Q9n2f1 pan troglod
133	28	84.8	241	1	NGF_PRANA	P20675 praomys nat
134	28	84.8	241	2	Q9N2E9	Q9n2e9 pongo pygma
135	28	84.8	241	2	Q9N2F0	Q9n2f0 gorilla gor
136	28	84.8	242	2	Q8R9G9	Q8r9g9 thermoanaer
137	28	84.8	249	2	Q72H00	Q72h00 thermus the
138	28	84.8	251	2	Q6WPG6	Q6wpg6 onychomys t
139	28	84.8	252	2	Q6WPA0	Q6wpa0 scolomys ju
140	28	84.8	252	2	Q6WPG9	Q6wpg9 baiomys tay
141	28	84.8	253	2	Q6WP93	Q6wp93 wiedomys py
142	28	84.8	253	2	Q6WP94	Q6wp94 thomasomys
143	28	84.8	253	2	Q6WP95	Q6wp95 thomasomys
144	28	84.8	253	2	Q6WP96	Q6wp96 akodon nigr
145	28	84.8	253	2	Q6WP97	Q6wp97 thalpomys c
146	28	84.8	253	2	Q6WP98	Q6wp98 thalpomys c
147	28	84.8	253	2	Q6WP99	Q6wp99 sigmodon hi
148	28	84.8	253	2	Q6WPA1	Q6wpa1 scapteromys
149	28	84.8	253	2	Q6WPA2	Q6wpa2 scapteromys
150	28	84.8	253	2	Q6WPA4	Q6wpa4 rhipidomys

ALIGNMENTS

```
RESULT 1
Q72HM9
ID   Q72HM9      PRELIMINARY;      PRT;   286 AA.
AC   Q72HM9;
DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   Proline iminopeptidase (EC 3.4.11.5).
GN   OrderedLocusNames=TTC1457;
OS   Thermus thermophilus (strain HB27 / ATCC BAA-163 / DSM 7039).
OC   Bacteria; Deinococcus-Thermus; Deinococci; Thermales; Thermaceae;
OC   Thermus.
OX   NCBI_TaxID=262724;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   PubMed=15064768;
RA   Henne A., Brueggemann H., Raasch C., Wiezer A., Hartsch T.,
RA   Liesegang H., Johann A., Lienard T., Gohl O., Martinez-Arias R.,
RA   Jacobi C., Starkuviene V., Schlenczeck S., Dencker S., Huber R.,
RA   Klenk H.-P., Kramer W., Merkl R., Gottschalk G., Fritz H.-J.;
RT   "The genome sequence of the extreme thermophile Thermus
RT   thermophilus.";
RL   Nat. Biotechnol. 22:547-553(2004).
DR   EMBL; AE017306; AAS81799.1; -.
DR   GO; GO:0003824; F:catalytic activity; IEA.
DR   GO; GO:0016804; F:prolyl aminopeptidase activity; IEA.
DR   GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
DR   InterPro; IPR000073; A/b_hydrolase.
DR   InterPro; IPR002410; Peptidase_S33.
DR   InterPro; IPR000379; Ser_estrs.
DR   Pfam; PF00561; Abhydrolase_1; 1.
DR   PRINTS; PR00793; PROAMNOPTASE.
KW   Complete proteome.
SQ   SEQUENCE   286 AA;  31500 MW;  F0C5A530F0E1DD19 CRC64;

  Query Match            100.0%;  Score 33;  DB 2;  Length 286;
  Best Local Similarity  100.0%;  Pred. No. 56;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db         71 QDPRLF 76


RESULT 2
Q7PPB0
ID   Q7PPB0      PRELIMINARY;      PRT;   534 AA.
AC   Q7PPB0;
DT   01-MAR-2004 (TrEMBLrel. 26, Created)
DT   01-MAR-2004 (TrEMBLrel. 26, Last sequence update)
DT   01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE   ENSANGP00000005974 (Fragment).
GN   Name=ENSANGG00000004547;
OS   Anopheles gambiae str. PEST.
OC   Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC   Neoptera; Endopterygota; Diptera; Nematocera; Culicoidea; Anopheles.
OX   NCBI_TaxID=180454;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=PEST;
RA   Anopheles Genome Sequencing Consortium;
RL   Submitted (APR-2003) to the EMBL/GenBank/DDBJ databases.
CC   -!- SIMILARITY: Belongs to the type-B carboxylesterase/lipase family.
CC   -!- CAUTION: The sequence shown here is derived from an
CC       EMBL/GenBank/DDBJ whole genome shotgun (WGS) entry which is
CC       preliminary data.
DR   EMBL; AAAB01008960; EAA10774.2; -.
DR   HSSP; P22303; 1F8U.
DR   GO; GO:0003824; F:catalytic activity; IEA.
DR   GO; GO:0004104; F:cholinesterase activity; IEA.
DR   InterPro; IPR002018; CarbesteraseB.
DR   InterPro; IPR000997; Cholinesterase.
DR   InterPro; IPR000379; Ser_estrs.
DR   Pfam; PF00135; COesterase; 1.
DR   PRINTS; PR00878; CHOLNESTRASE.
DR   PROSITE; PS00122; CARBOXYLESTERASE_B_1; 1.
FT   NON_TER       1      1
SQ   SEQUENCE   534 AA;  59466 MW;  F91519F9F4A10B12 CRC64;

  Query Match            100.0%;  Score 33;  DB 2;  Length 534;
  Best Local Similarity  100.0%;  Pred. No. 1.1e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        335 QDPRLF 340


RESULT 3
Q97W54
ID   Q97W54      PRELIMINARY;      PRT;   616 AA.
AC   Q97W54;
DT   01-OCT-2001 (TrEMBLrel. 18, Created)
DT   01-OCT-2001 (TrEMBLrel. 18, Last sequence update)
DT   01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
```

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DE   Hypothetical protein SSO2386.
GN   OrderedLocusNames=SSO2386;
OS   Sulfolobus solfataricus.
OC   Archaea; Crenarchaeota; Thermoprotei; Sulfolobales; Sulfolobaceae;
OC   Sulfolobus.
OX   NCBI_TaxID=2287;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=ATCC 35092 / DSM 1617 / P2;
RX   MEDLINE=21332296; PubMed=11427726; DOI=10.1073/pnas.141222098;
RA   She Q., Singh R.K., Confalonieri F., Zivanovic Y., Allard G.,
RA   Awayez M.J., Chan-Weiher C.C.-Y., Clausen I.G., Curtis B.A.,
RA   De Moors A., Erauso G., Fletcher C., Gordon P.M.K.,
RA   Heikamp-de Jong I., Jeffries A.C., Kozera C.J., Medina N., Peng X.,
RA   Thi-Ngoc H.P., Redder P., Schenk M.E., Theriault C., Tolstrup N.,
RA   Charlebois R.L., Doolittle W.F., Duguet M., Gaasterland T.,
RA   Garrett R.A., Ragan M.A., Sensen C.W., Van der Oost J.;
RT   "The complete genome of the crenarchaeon Sulfolobus solfataricus P2.";
RL   Proc. Natl. Acad. Sci. U.S.A. 98:7835-7840(2001).
DR   EMBL; AE006839; AAK42534.1; -.
DR   PIR; G90409; G90409.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0009306; P:protein secretion; IEA.
DR   InterPro; IPR001992; Bact_secr_systII.
DR   Pfam; PF00482; GSPII_F; 1.
KW   Complete proteome; Hypothetical protein.
SQ   SEQUENCE   616 AA;  67929 MW;  111BF488D05509E5 CRC64;

  Query Match             100.0%;  Score 33;  DB 2;  Length 616;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db         49 QDPRLF 54


RESULT 4
PIGR_HUMAN
ID   PIGR_HUMAN     STANDARD;      PRT;   764 AA.
AC   P01833;
DT   21-JUL-1986 (Rel. 01, Created)
DT   01-OCT-1996 (Rel. 34, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Polymeric-immunoglobulin receptor precursor (Poly-Ig receptor) (PIGR)
DE   [Contains: Secretory component].
GN   Name=PIGR;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=92039621; PubMed=1682231;
RA   Krajci P., Grzeschik K.H., Geurts van Kessel A.H., Olaisen B.,
RA   Brandtzaeg P.;
RT   "The human transmembrane secretory component (poly-Ig receptor):
RT   molecular cloning, restriction fragment length polymorphism and
RT   chromosomal sublocalization.";
RL   Hum. Genet. 87:642-648(1991).
RN   [2]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=92387236; PubMed=1355431;
RA   Krajci P., Kvale D., Tasken K., Brandtzaeg P.;
RT   "Molecular cloning and exon-intron mapping of the gene encoding human
RT   transmembrane secretory component (the poly-Ig receptor).";
RL   Eur. J. Immunol. 22:2309-2315(1992).
RN   [3]
RP   SEQUENCE OF 72-764 FROM N.A.
RX   MEDLINE=89149795; PubMed=2920039;
RA   Krajci P., Solberg R., Sandberg M., Oyen O., Jahnsen T.,
RA   Brandtzaeg P.;
RT   "Molecular cloning of the human transmembrane secretory component
RT   (poly-Ig receptor) and its mRNA expression in human tissues.";
RL   Biochem. Biophys. Res. Commun. 158:783-789(1989).
RN   [4]
RP   SEQUENCE OF 19-577, DISULFIDE BONDS, AND CARBOHYDRATE-LINKAGE SITES.
RX   MEDLINE=85128981; PubMed=6526384;
RA   Eiffert H., Quentin E., Decker J., Hillemeir S., Hufschmidt M.,
RA   Klingmueller D., Weber M.H., Hilschmann N.;
RT   "The primary structure of human free secretory component and the
RT   arrangement of disulfide bonds.";
RL   Hoppe-Seyler's Z. Physiol. Chem. 365:1489-1495(1984).
RN   [5]
RP   SEQUENCE OF 19-577.
RX   MEDLINE=91315750; PubMed=1859628;
RA   Eiffert H., Quentin E., Wiederhold M., Hillemeir S., Decker J.,
RA   Weber M., Hilschmann N.;
RT   "Determination of the molecular structure of the human free secretory
RT   component.";
RL   Biol. Chem. Hoppe-Seyler 372:119-128(1991).
RN   [6]
RP   SEQUENCE OF 118-138; 212-230; 232-268; 273-288 AND 578-603.
RX   MEDLINE=97379357; PubMed=9237679; DOI=10.1016/S0014-5793(97)00629-7;
RA   Hughes G.J., Frutiger S., Savoy L.-A., Reason A.J., Morris H.R.,
RA   Jaton J.-C.;
RT   "Human free secretory component is composed of the first 585 amino
RT   acid residues of the polymeric immunoglobulin receptor.";
RL   FEBS Lett. 410:443-446(1997).
CC   -!- FUNCTION: This receptor binds polymeric IgA and IgM at the
CC       basolateral surface of epithelial cells. The complex is then
CC       transported across the cell to be secreted at the apical surface.
CC       During this process a cleavage occurs that separate the
CC       extracellular (known as the secretory component) from the
CC       transmembrane segment.
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein. Also secreted.
CC   -!- SIMILARITY: Contains 5 immunoglobulin-like V-type domains.
CC   ---------------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
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CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------------
DR   EMBL; S62403; AAB20203.1; -.
DR   EMBL; S43449; AAB23176.1; -.
DR   EMBL; S43437; AAB23176.1; JOINED.
DR   EMBL; S43441; AAB23176.1; JOINED.
DR   EMBL; S43442; AAB23176.1; JOINED.
DR   EMBL; S43443; AAB23176.1; JOINED.
DR   EMBL; S43444; AAB23176.1; JOINED.
DR   EMBL; S43445; AAB23176.1; JOINED.
DR   EMBL; S43446; AAB23176.1; JOINED.
DR   EMBL; S43447; AAB23176.1; JOINED.
DR   EMBL; S43448; AAB23176.1; JOINED.
DR   EMBL; M24559; AAA36102.1; -.
DR   EMBL; A52091; CAA03384.1; -.
DR   PIR; A46537; QRHUGS.
DR   GlycoSuiteDB; P01833; -.
DR   Genew; HGNC:8968; PIGR.
DR   MIM; 173880; -.
DR   GO; GO:0005887; C:integral to plasma membrane; TAS.
DR   InterPro; IPR003599; Ig.
DR   InterPro; IPR007110; Ig-like.
DR   Pfam; PF00047; ig; 5.
DR   SMART; SM00409; IG; 5.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Direct protein sequencing; Glycoprotein; Immunoglobulin domain;
KW   Polymorphism; Repeat; Signal; Transmembrane.
FT   SIGNAL        1     18
FT   CHAIN        19    764       Polymeric-immunoglobulin receptor.
FT   CHAIN        19    603       Secretory component.
FT   DOMAIN       19    638       Extracellular (Potential).
FT   TRANSMEM    639    661       Potential.
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FT   DOMAIN      662    764       Cytoplasmic (Potential).
FT   DOMAIN       19    120       Ig-like V-type 1.
FT   DOMAIN      145    237       Ig-like V-type 2.
FT   DOMAIN      250    352       Ig-like V-type 3.
FT   DOMAIN      364    458       Ig-like V-type 4.
FT   DOMAIN      462    561       Ig-like V-type 5.
FT   DISULFID     40    110
FT   DISULFID     56     64
FT   DISULFID    152    220
FT   DISULFID    257    325
FT   DISULFID    271    279
FT   DISULFID    371    441
FT   DISULFID    385    395
FT   DISULFID    482    544
FT   DISULFID    486    520
FT   DISULFID    496    503
FT   CARBOHYD     83     83       N-linked (GlcNAc. . .).
FT   CARBOHYD     90     90       N-linked (GlcNAc. . .).
FT   CARBOHYD    135    135       N-linked (GlcNAc. . .).
FT   CARBOHYD    186    186       N-linked (GlcNAc. . .).
FT   CARBOHYD    421    421       N-linked (GlcNAc. . .).
FT   CARBOHYD    469    469       N-linked (GlcNAc. . .).
FT   CARBOHYD    499    499       N-linked (GlcNAc. . .).
FT   VARIANT     580    580       A -> V.
FT                                /FTId=VAR_003920.
FT   CONFLICT    136    136       D -> Q (in Ref. 4 and 5).
FT   CONFLICT    158    158       N -> D (in Ref. 4 and 5).
FT   CONFLICT    208    209       NQ -> DE (in Ref. 4 and 5).
FT   CONFLICT    229    229       Missing (in Ref. 4 and 5).
FT   CONFLICT    234    234       D -> N (in Ref. 4 and 5).
FT   CONFLICT    241    241       E -> Q (in Ref. 4 and 5).
FT   CONFLICT    262    262       E -> Q (in Ref. 4 and 5).
FT   CONFLICT    280    280       D -> N (in Ref. 4 and 5).
FT   CONFLICT    392    392       N -> D (in Ref. 4 and 5).
FT   CONFLICT    500    500       N -> D (in Ref. 4 and 5).
SQ   SEQUENCE   764 AA;  83313 MW;  916B3E662C339950 CRC64;

  Query Match             100.0%;  Score 33;  DB 1;  Length 764;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        600 QDPRLF 605


RESULT 5
Q8IZY7
ID   Q8IZY7      PRELIMINARY;      PRT;   764 AA.
AC   Q8IZY7;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE   Hepatocellular carcinoma associated protein TB6.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Dong X., Pang X., Cheng W.;
RL   Submitted (NOV-2002) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF272149; AAN65630.1; -.
DR   HSSP; O95944; 1HKF.
DR   InterPro; IPR003599; Ig.
DR   InterPro; IPR007110; Ig-like.
DR   SMART; SM00409; IG; 5.
DR   PROSITE; PS50835; IG_LIKE; 2.
SQ   SEQUENCE   764 AA;  83283 MW;  927461F4EB3B05C7 CRC64;

  Query Match             100.0%;  Score 33;  DB 2;  Length 764;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        600 QDPRLF 605


RESULT 6
Q9KW22
ID   Q9KW22      PRELIMINARY;      PRT;   790 AA.
AC   Q9KW22;
DT   01-OCT-2000 (TrEMBLrel. 15, Created)
DT   01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   HrpF.
GN   Name=hrpF;
OS   Xanthomonas oryzae (pv. oryzae).
OC   Bacteria; Proteobacteria; Gammaproteobacteria; Xanthomonadales;
OC   Xanthomonadaceae; Xanthomonas.
OX   NCBI_TaxID=64187;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=MAFF 311018;
RX   MEDLINE=21303248; PubMed=11410350;
RA   Ochiai H., Inoue Y., Hasebe A., Kaku H.;
RT   "Construction and characterization of a Xanthomonas oryzae pv. oryzae
RT   bacterial artificial chromosome library.";
RL   FEMS Microbiol. Lett. 200:59-65(2001).
DR   EMBL; AB045312; BAB07869.1; -.
DR   GO; GO:0009877; P:nodulation; IEA.
DR   InterPro; IPR008718; NolX.
DR   Pfam; PF05819; NolX; 1.
SQ   SEQUENCE   790 AA;  84883 MW;  73FD1F71106E56B8 CRC64;

  Query Match             100.0%;  Score 33;  DB 2;  Length 790;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        180 QDPRLF 185


RESULT 7
Q6F5A9
ID   Q6F5A9      PRELIMINARY;      PRT;   802 AA.
AC   Q6F5A9;
DT   25-OCT-2004 (TrEMBLrel. 28, Created)
DT   25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
DT   25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
DE   HrpF.
GN   Name=hrpF;
OS   Xanthomonas oryzae (pv. oryzae).
OC   Bacteria; Proteobacteria; Gammaproteobacteria; Xanthomonadales;
OC   Xanthomonadaceae; Xanthomonas.
OX   NCBI_TaxID=64187;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Oku T., Tanaka K., Iwamoto M., Inoue Y., Ochiai H., Kaku H., Tsuge S.,
RA   Tsuno K.;
RL   Submitted (JUL-2003) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AB115081; BAD30006.1; -.
DR   GO; GO:0009877; P:nodulation; IEA.
DR   InterPro; IPR008718; NolX.
DR   Pfam; PF05819; NolX; 1.
SQ   SEQUENCE   802 AA;  85937 MW;  0A7AE85B517E5800 CRC64;

  Query Match             100.0%;  Score 33;  DB 2;  Length 802;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        180 QDPRLF 185
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RESULT 8
Q6QJ83
ID   Q6QJ83      PRELIMINARY;      PRT;   802 AA.
AC   Q6QJ83;
DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   Type III secretion system component.
GN   Name=hrpF;
OS   Xanthomonas oryzae (pv. oryzae).
OC   Bacteria; Proteobacteria; Gammaproteobacteria; Xanthomonadales;
OC   Xanthomonadaceae; Xanthomonas.
OX   NCBI_TaxID=64187;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=PXO99A;
RA   Sugio A., White F.F.;
RL   Submitted (JAN-2004) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AY536514; AAS48653.1; -.
DR   GO; GO:0009877; P:nodulation; IEA.
DR   InterPro; IPR008718; NolX.
DR   Pfam; PF05819; NolX; 1.
SQ   SEQUENCE   802 AA;  85952 MW;  17731B8B643A3B6E CRC64;

  Query Match             100.0%;  Score 33;  DB 2;  Length 802;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        180 QDPRLF 185


RESULT 9
Q83XD5
ID   Q83XD5      PRELIMINARY;      PRT;   805 AA.
AC   Q83XD5;
DT   01-JUN-2003 (TrEMBLrel. 24, Created)
DT   01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DT   01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE   HrpF.
GN   Name=hrpF;
OS   Xanthomonas axonopodis pv. glycines.
OC   Bacteria; Proteobacteria; Gammaproteobacteria; Xanthomonadales;
OC   Xanthomonadaceae; Xanthomonas.
OX   NCBI_TaxID=92830;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=8ra;
RX   MEDLINE=22615868; PubMed=12730176;
RX   DOI=10.1128/JB.185.10.3155-3166.2003;
RA   Kim J.G., Park B.K., Yoo C.H., Jeon E., Oh J., Hwang I.;
RT   "Characterization of the Xanthomonas axonopodis pv. glycines Hrp
RT   pathogenicity island.";
RL   J. Bacteriol. 185:3155-3166(2003).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=8ra;
RA   Kim J.-G., Park B.K., Yoo C.-H., Hwang I.;
RL   Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF499777; AAP34358.1; -.
DR   GO; GO:0009877; P:nodulation; IEA.
DR   InterPro; IPR008718; NolX.
DR   Pfam; PF05819; NolX; 1.
SQ   SEQUENCE   805 AA;  85871 MW;  0AACE72382DAF778 CRC64;

  Query Match             100.0%;  Score 33;  DB 2;  Length 805;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        184 QDPRLF 189


RESULT 10
O33967
ID   O33967      PRELIMINARY;      PRT;   806 AA.
AC   O33967;
DT   01-JAN-1998 (TrEMBLrel. 05, Created)
DT   01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   HrpF.
GN   Name=hrpF;
OS   Xanthomonas campestris (pv. vesicatoria).
OC   Bacteria; Proteobacteria; Gammaproteobacteria; Xanthomonadales;
OC   Xanthomonadaceae; Xanthomonas.
OX   NCBI_TaxID=341;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=75-3;
RX   MEDLINE=21833500; PubMed=11844763;
RA   Noel L., Thieme F., Nennstiel D., Bonas U.;
RT   "Two Novel Type III-Secreted Proteins of Xanthomonas campestris pv.
RT   vesicatoria Are Encoded within the hrp Pathogenicity Island.";
RL   J. Bacteriol. 184:1340-1348(2002).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=75-3;
RA   Huguet E., Bonas U.;
RL   Submitted (NOV-1996) to the EMBL/GenBank/DDBJ databases.
RN   [3]
RP   SEQUENCE FROM N.A.
RC   STRAIN=75-3;
RA   Huguet E.J., Hahn K., Wengelnik K., Bonas U.;
RL   Submitted (MAR-1998) to the EMBL/GenBank/DDBJ databases.
RN   [4]
RP   SEQUENCE FROM N.A.
RC   STRAIN=75-3;
RA   Noel L., Thieme F., Nennstiel D., Bonas U.;
RL   Submitted (AUG-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF056246; AAB86527.1; -.
DR   GO; GO:0009877; P:nodulation; IEA.
DR   InterPro; IPR008718; NolX.
DR   Pfam; PF05819; NolX; 1.
SQ   SEQUENCE   806 AA;  86420 MW;  598DBEF9C7B2A171 CRC64;

  Query Match             100.0%;  Score 33;  DB 2;  Length 806;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        180 QDPRLF 185


RESULT 11
Q8PQD2
ID   Q8PQD2      PRELIMINARY;      PRT;   824 AA.
AC   Q8PQD2;
DT   01-OCT-2002 (TrEMBLrel. 22, Created)
DT   01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   HrpF protein.
GN   Name=hrpF; OrderedLocusNames=XAC0394;
OS   Xanthomonas axonopodis (pv. citri).
OC   Bacteria; Proteobacteria; Gammaproteobacteria; Xanthomonadales;
OC   Xanthomonadaceae; Xanthomonas.
OX   NCBI_TaxID=92829;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=306 / ATCC 13902 / XV 101;
RX   MEDLINE=22022145; PubMed=12024217; DOI=10.1038/417459a;
RA   da Silva A.C.R., Ferro J.A., Reinach F.C., Farah C.S., Furlan L.R.,
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RA   Quaggio R.B., Monteiro-Vitorello C.B., Van Sluys M.A., Almeida N.F.,
RA   Alves L.M.C., do Amaral A.M., Bertolini M.C., Camargo L.E.A.,
RA   Camarotte G., Cannavan F., Cardozo J., Chambergo F., Ciapina L.P.,
RA   Cicarelli R.M.B., Coutinho L.L., Cursino-Santos J.R., El-Dorry H.,
RA   Faria J.B., Ferreira A.J.S., Ferreira R.C.C., Ferro M.I.T.,
RA   Formighieri E.F., Franco M.C., Greggio C.C., Gruber A.,
RA   Katsuyama A.M., Kishi L.T., Leite R.P., Lemos E.G.M., Lemos M.V.F.,
RA   Locali E.C., Machado M.A., Madeira A.M.B.N., Martinez-Rossi N.M.,
RA   Martins E.C., Meidanis J., Menck C.F.M., Miyaki C.Y., Moon D.H.,
RA   Moreira L.M., Novo M.T.M., Okura V.K., Oliveira M.C., Oliveira V.R.,
RA   Pereira H.A., Rossi A., Sena J.A.D., Silva C., de Souza R.F.,
RA   Spinola L.A.F., Takita M.A., Tamura R.E., Teixeira E.C., Tezza R.I.D.,
RA   Trindade dos Santos M., Truffi D., Tsai S.M., White F.F.,
RA   Setubal J.C., Kitajima J.P.;
RT   "Comparison of the genomes of two Xanthomonas pathogens with differing
RT   host specificities.";
RL   Nature 417:459-463(2002).
DR   EMBL; AE011665; AAM35285.1; -.
DR   GO; GO:0009877; P:nodulation; IEA.
DR   InterPro; IPR008718; NolX.
DR   Pfam; PF05819; NolX; 1.
KW   Complete proteome.
SQ   SEQUENCE   824 AA;  88460 MW;  D1594774A2819A4D CRC64;

  Query Match             100.0%;  Score 33;  DB 2;  Length 824;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        211 QDPRLF 216


RESULT 12
Q72K96
ID   Q72K96      PRELIMINARY;      PRT;    95 AA.
AC   Q72K96;
DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   Hypothetical conserved protein.
GN   OrderedLocusNames=TTC0551;
OS   Thermus thermophilus (strain HB27 / ATCC BAA-163 / DSM 7039).
OC   Bacteria; Deinococcus-Thermus; Deinococci; Thermales; Thermaceae;
OC   Thermus.
OX   NCBI_TaxID=262724;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   PubMed=15064768;
RA   Henne A., Brueggemann H., Raasch C., Wiezer A., Hartsch T.,
RA   Liesegang H., Johann A., Lienard T., Gohl O., Martinez-Arias R.,
RA   Jacobi C., Starkuviene V., Schlenczeck S., Dencker S., Huber R.,
RA   Klenk H.-P., Kramer W., Merkl R., Gottschalk G., Fritz H.-J.;
RT   "The genome sequence of the extreme thermophile Thermus
RT   thermophilus.";
RL   Nat. Biotechnol. 22:547-553(2004).
DR   EMBL; AE017302; AAS80899.1; -.
DR   GO; GO:0006364; P:rRNA processing; IEA.
DR   InterPro; IPR000238; Rib_bind_factA.
DR   Pfam; PF02033; RBFA; 1.
KW   Complete proteome.
SQ   SEQUENCE   95 AA;  10857 MW;  2807A8979E74A3C9 CRC64;

  Query Match             90.9%;  Score 30;  DB 2;  Length 95;
  Best Local Similarity   83.3%;  Pred. No. 80;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              :|||||
Db         24 EDPRLF 29


RESULT 13
Q9VA81
ID   Q9VA81      PRELIMINARY;      PRT;   140 AA.
AC   Q9VA81;
DT   01-MAY-2000 (TrEMBLrel. 13, Created)
DT   01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   CG9688-PA.
GN   Name=mRpS18a; ORFNames=CG9688;
OS   Drosophila melanogaster (Fruit fly).
OC   Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC   Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
OC   Ephydroidea; Drosophilidae; Drosophila.
OX   NCBI_TaxID=7227;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=20196006; PubMed=10731132; DOI=10.1126/science.287.5461.2185;
RA   Adams M.D., Celniker S.E., Holt R.A., Evans C.A., Gocayne J.D.,
RA   Amanatides P.G., Scherer S.E., Li P.W., Hoskins R.A., Galle R.F.,
RA   George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
RA   Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
RA   Brandon R.C., Rogers Y.H., Blazej R.G., Champe M., Pfeiffer B.D.,
RA   Wan K.H., Doyle C., Baxter E.G., Helt G., Nelson C.R., Gabor G.L.,
RA   Abril J.F., Agbayani A., An H.J., Andrews-Pfannkoch C., Baldwin D.,
RA   Ballew R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley E.M.,
RA   Beeson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S.,
RA   Borkova D., Botchan M.R., Bouck J., Brokstein P., Brottier P.,
RA   Burtis K.C., Busam D.A., Butler H., Cadieu E., Center A., Chandra I.,
RA   Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA   de Pablos B., Delcher A., Deng Z., Mays A.D., Dew I., Dietz S.M.,
RA   Dodson K., Doup L.E., Downes M., Dugan-Rocha S., Dunkov B.C., Dunn P.,
RA   Durbin K.J., Evangelista C.C., Ferraz C., Ferriera S., Fleischmann W.,
RA   Fosler C., Gabrielian A.E., Garg N.S., Gelbart W.M., Glasser K.,
RA   Glodek A., Gong F., Gorrell J.H., Gu Z., Guan P., Harris M.,
RA   Harris N.L., Harvey D., Heiman T.J., Hernandez J.R., Houck J.,
RA   Hostin D., Houston K.A., Howland T.J., Wei M.H., Ibegwam C.,
RA   Jalali M., Kalush F., Karpen G.H., Ke Z., Kennison J.A., Ketchum K.A.,
RA   Kimmel B.E., Kodira C.D., Kraft C., Kravitz S., Kulp D., Lai Z.,
RA   Lasko P., Lei Y., Levitsky A.A., Li J., Li Z., Liang Y., Lin X.,
RA   Liu X., Mattei B., McIntosh T.C., McLeod M.P., McPherson D.,
RA   Merkulov G., Milshina N.V., Mobarry C., Morris J., Moshrefi A.,
RA   Mount S.M., Moy M., Murphy B., Murphy L., Muzny D.M., Nelson D.L.,
RA   Nelson D.R., Nelson K.A., Nixon K., Nusskern D.R., Pacleb J.M.,
RA   Palazzolo M., Pittman G.S., Pan S., Pollard J., Puri V., Reese M.G.,
RA   Reinert K., Remington K., Saunders R.D., Scheeler F., Shen H.,
RA   Shue B.C., Siden-Kiamos I., Simpson M., Skupski M.P., Smith T.,
RA   Spier E., Spradling A.C., Stapleton M., Strong R., Sun E.,
RA   Svirskas R., Tector C., Turner R., Venter E., Wang A.H., Wang X.,
RA   Wang Z.Y., Wassarman D.A., Weinstock G.M., Weissenbach J.,
RA   Williams S.M., WoodageT, Worley K.C., Wu D., Yang S., Yao Q.A., Ye J.,
RA   Yeh R.F., Zaveri J.S., Zhan M., Zhang G., Zhao Q., Zheng L.,
RA   Zheng X.H., Zhong F.N., Zhong W., Zhou X., Zhu S., Zhu X., Smith H.O.,
RA   Gibbs R.A., Myers E.W., Rubin G.M., Venter J.C.;
RT   "The genome sequence of Drosophila melanogaster.";
RL   Science 287:2185-2195(2000).
RN   [2]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=22426065; PubMed=12537568;
RA   Celniker S.E., Wheeler D.A., Kronmiller B., Carlson J.W., Halpern A.,
RA   Patel S., Adams M., Champe M., Dugan S.P., Frise E., Hodgson A.,
RA   George R.A., Hoskins R.A., Laverty T., Muzny D.M., Nelson C.R.,
RA   Pacleb J.M., Park S., Pfeiffer B.D., Richards S., Sodergren E.J.,
RA   Svirskas R., Tabor P.E., Wan K., Stapleton M., Sutton G.G., Venter C.,
RA   Weinstock G., Scherer S.E., Myers E.W., Gibbs R.A., Rubin G.M.;
RT   "Finishing a whole-genome shotgun: Release 3 of the Drosophila
RT   melanogaster euchromatic genome sequence.";
RL   Genome Biol. 3:RESEARCH0079-RESEARCH0079(2002).
RN   [3]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=22426070; PubMed=12537573;
RA   Kaminker J.S., Bergman C.M., Kronmiller B., Carlson J., Svirskas R.,
RA   Patel S., Frise E., Wheeler D.A., Lewis S.E., Rubin G.M.,
RA   Ashburner M., Celniker S.E.;
RT   "The transposable elements of the Drosophila melanogaster euchromatin:
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RT   a genomics perspective.";
RL   Genome Biol. 3:RESEARCH0084-RESEARCH0084(2002).
RN   [4]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=22426069; PubMed=12537572;
RA   Misra S., Crosby M.A., Mungall C.J., Matthews B.B., Campbell K.S.,
RA   Hradecky P., Huang Y., Kaminker J.S., Millburn G.H., Prochnik S.E.,
RA   Smith C.D., Tupy J.L., Whitfied E.J., Bayraktaroglu L., Berman B.P.,
RA   Bettencourt B.R., Celniker S.E., de Grey A.D., Drysdale R.A.,
RA   Harris N.L., Richter J., Russo S., Schroeder A.J., Shu S.Q.,
RA   Stapleton M., Yamada C., Ashburner M., Gelbart W.M., Rubin G.M.,
RA   Lewis S.E.;
RT   "Annotation of the Drosophila melanogaster euchromatic genome: a
RT   systematic review.";
RL   Genome Biol. 3:RESEARCH0083-RESEARCH0083(2002).
RN   [5]
RP   SEQUENCE FROM N.A.
RG   FlyBase;
RL   Submitted (SEP-2002) to the EMBL/GenBank/DDBJ databases.
RN   [6]
RP   SEQUENCE FROM N.A.
RG   FlyBase;
RL   Submitted (MAR-2004) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AE003773; AAF57041.2; -.
DR   FlyBase; FBgn0039765; mRpS18a.
DR   GO; GO:0005622; C:intracellular; IEA.
DR   GO; GO:0005840; C:ribosome; IEA.
DR   GO; GO:0003735; F:structural constituent of ribosome; IEA.
DR   GO; GO:0006412; P:protein biosynthesis; IEA.
DR   InterPro; IPR001648; Ribosomal_S18.
DR   Pfam; PF01084; Ribosomal_S18; 1.
SQ   SEQUENCE   140 AA;  16188 MW;  FAC0EC7388C814F4 CRC64;

  Query Match             90.9%;  Score 30;  DB 2;  Length 140;
  Best Local Similarity   83.3%;  Pred. No. 1.2e+02;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              |||:||
Db        124 QDPKLF 129


RESULT 14
Q92WR8
ID   Q92WR8      PRELIMINARY;      PRT;   143 AA.
AC   Q92WR8;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Hypothetical protein SMb20271.
GN   ORFNames=SMb20271;
OS   Rhizobium meliloti (Sinorhizobium meliloti).
OG   Plasmid pSymB.
OC   Bacteria; Proteobacteria; Alphaproteobacteria; Rhizobiales;
OC   Rhizobiaceae; Sinorhizobium/Ensifer group; Sinorhizobium.
OX   NCBI_TaxID=382;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=1021;
RX   MEDLINE=21396508; PubMed=11481431; DOI=10.1073/pnas.161294698;
RA   Finan T.M., Weidner S., Wong K., Buhrmester J., Chain P.,
RA   Vorhoelter F.J., Hernandez-Lucas I., Becker A., Cowie A., Gouzy J.,
RA   Golding B., Puehler A.;
RT   "The complete sequence of the 1,683-kb pSymB megaplasmid from the N2-
RT   fixing endosymbiont Sinorhizobium meliloti.";
RL   Proc. Natl. Acad. Sci. U.S.A. 98:9889-9894(2001).
DR   EMBL; AL591985; CAC48661.1; -.
DR   PIR; E95874; E95874.
DR   HSSP; P24246; 1ML8.
DR   GO; GO:0006950; P:response to stress; IEA.
DR   InterPro; IPR003718; OsmC.
DR   Pfam; PF02566; OsmC; 1.
KW   Complete proteome; Hypothetical protein; Plasmid.
SQ   SEQUENCE   143 AA;  15321 MW;  77B9082D7E3C874E CRC64;

  Query Match             90.9%;  Score 30;  DB 2;  Length 143;
  Best Local Similarity   83.3%;  Pred. No. 1.2e+02;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||:|
Db         81 QDPRVF 86


RESULT 15
TNF7_HUMAN
ID   TNF7_HUMAN      STANDARD;      PRT;   193 AA.
AC   P32970; Q96J57;
DT   01-OCT-1993 (Rel. 27, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Tumor necrosis factor ligand superfamily member 7 (CD27 ligand) (CD27-
DE   L) (CD70 antigen).
GN   Name=TNFSF7; Synonyms=CD27L, CD27LG, CD70;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=B-cell;
RX   MEDLINE=93258810; PubMed=8387892; DOI=10.1016/0092-8674(93)90133-B;
RA   Goodwin R.G., Alderson M.R., Smith C.A., Armitage R.J., Vandenbos T.,
RA   Jerzy R., Tough T.W., Schoenborn M.A., David-Smith T., Hennen K.,
RA   Falk B., Cosman D., Baker E., Sutherland G.R., Grabstein K.H.,
RA   Farrah T., Giri J.G., Beckmann M.P.;
RT   "Molecular and biological characterization of a ligand for CD27
RT   defines a new family of cytokines with homology to tumor necrosis
RT   factor.";
RL   Cell 73:447-456(1993).
RN   [2]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=94165470; PubMed=8120384;
RA   Bowman M.R., Crimmins M.A., Yetz-Aldape J., Kriz R., Kelleher K.,
RA   Herrmann S.;
RT   "The cloning of CD70 and its identification as the ligand for CD27.";
RL   J. Immunol. 152:1756-1761(1994).
RN   [3]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Kidney;
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
CC   -!- FUNCTION: Cytokine that binds to TNFRSF7/CD27. Plays a role in T
CC       cell activation. Induces the proliferation of costimulated T cells
CC       and enhances the generation of cytolytic T cells.
CC   -!- SUBUNIT: Homotrimer (Probable).
CC   -!- SUBCELLULAR LOCATION: Type II membrane protein.
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CC   -!- SIMILARITY: Belongs to the tumor necrosis factor family.
CC   -!- DATABASE: NAME=PROW; NOTE=CD guide CD70 entry;
CC       WWW="http://www.ncbi.nlm.nih.gov/prow/cd/cd70.htm".
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; L08096; AAA36175.1; -.
DR   EMBL; S69339; AAB30121.1; -.
DR   EMBL; BC000725; AAH00725.1; -.
DR   PIR; I56214; A40738.
DR   Genew; HGNC:11937; TNFSF7.
DR   H-InvDB; HIX0014702; -.
DR   MIM; 602840; -.
DR   GO; GO:0005887; C:integral to plasma membrane; TAS.
DR   GO; GO:0005102; F:receptor binding; TAS.
DR   GO; GO:0008283; P:cell proliferation; TAS.
DR   GO; GO:0007267; P:cell-cell signaling; TAS.
DR   GO; GO:0007165; P:signal transduction; TAS.
DR   InterPro; IPR003637; TNF_7.
DR   InterPro; IPR006052; TNF_family.
DR   InterPro; IPR008983; TNF_like.
DR   Pfam; PF00229; TNF; 1.
DR   SMART; SM00207; TNF; 1.
DR   PROSITE; PS00251; TNF_1; 1.
DR   PROSITE; PS50049; TNF_2; 1.
KW   Antigen; Cytokine; Glycoprotein; Signal-anchor; Transmembrane.
FT   DOMAIN        1     20       Cytoplasmic (Potential).
FT   TRANSMEM     21     38       Signal-anchor for type II membrane
FT                                protein (Potential).
FT   DOMAIN       39    193       Extracellular (Potential).
FT   DISULFID    133    151       Potential.
FT   CARBOHYD     63     63       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    170    170       N-linked (GlcNAc. . .) (Potential).
FT   CONFLICT    154    154       A -> V (in Ref. 1).
SQ   SEQUENCE   193 AA;  21118 MW;  9265856E33BE4D50 CRC64;

  Query Match             90.9%;  Score 30;  DB 1;  Length 193;
  Best Local Similarity   83.3%;  Pred. No. 1.7e+02;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              |||||:
Db         69 QDPRLY 74


RESULT 16
Q89RP8
ID   Q89RP8      PRELIMINARY;      PRT;   277 AA.
AC   Q89RP8;
DT   01-JUN-2003 (TrEMBLrel. 24, Created)
DT   01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Ubiquinol oxidase polypeptide II (EC 1.10.3.-).
GN   Name=cyoA; OrderedLocusNames=blr2714;
OS   Bradyrhizobium japonicum.
OC   Bacteria; Proteobacteria; Alphaproteobacteria; Rhizobiales;
OC   Bradyrhizobiaceae; Bradyrhizobium.
OX   NCBI_TaxID=375;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=USDA110;
RX   MEDLINE=22484998; PubMed=12597275;
RA   Kaneko T., Nakamura Y., Sato S., Minamisawa K., Uchiumi T.,
RA   Sasamoto S., Watanabe A., Idesawa K., Iriguchi M., Kawashima K.,
RA   Kohara M., Matsumoto M., Shimpo S., Tsuruoka H., Wada T., Yamada M.,
RA   Tabata S.;
RT   "Complete genomic sequence of nitrogen-fixing symbiotic bacterium
RT   Bradyrhizobium japonicum USDA110.";
RL   DNA Res. 9:189-197(2002).
DR   EMBL; AP005944; BAC47979.1; -.
DR   HSSP; P18400; 1CYW.
DR   GO; GO:0005507; F:copper ion binding; IEA.
DR   GO; GO:0016491; F:oxidoreductase activity; IEA.
DR   InterPro; IPR001505; Copper_CuA.
DR   InterPro; IPR008972; Cupredoxin.
DR   ProDom; PD000131; Copper_CuA; 1.
KW   Complete proteome; Oxidoreductase.
SQ   SEQUENCE   277 AA;  30249 MW;  BBE2391FB561769D CRC64;

  Query Match             90.9%;  Score 30;  DB 2;  Length 277;
  Best Local Similarity   83.3%;  Pred. No. 2.5e+02;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              :|||||
Db        241 EDPRLF 246


RESULT 17
Q84709
ID   Q84709      PRELIMINARY;      PRT;   303 AA.
AC   Q84709;
DT   01-NOV-1996 (TrEMBLrel. 01, Created)
DT   01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Hypothetical protein.
OS   Pea enation mosaic virus-1.
OC   Viruses; ssRNA positive-strand viruses, no DNA stage; Luteoviridae;
OC   Enamovirus.
OX   NCBI_TaxID=193121;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=WSG;
RX   MEDLINE=91341468; PubMed=1875194;
RA   Demler S.A., de Zoeten G.A.;
RT   "The nucleotide sequence and luteovirus-like nature of RNA 1 of an
RT   aphid non-transmissible strain of pea enation mosaic virus.";
RL   J. Gen. Virol. 72:1819-1834(1991).
DR   EMBL; L04573; AAA72299.1; -.
DR   PIR; JQ1382; JQ1382.
KW   Hypothetical protein.
SQ   SEQUENCE   303 AA;  34120 MW;  9915547A549A9920 CRC64;

  Query Match             90.9%;  Score 30;  DB 2;  Length 303;
  Best Local Similarity   83.3%;  Pred. No. 2.8e+02;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              |||||:
Db        180 QDPRLY 185


RESULT 18
Q8YYK8
ID   Q8YYK8      PRELIMINARY;      PRT;   360 AA.
AC   Q8YYK8;
DT   01-MAR-2002 (TrEMBLrel. 20, Created)
DT   01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Alr0840 protein.
GN   OrderedLocusNames=alr0840;
OS   Anabaena sp. (strain PCC 7120).
OC   Bacteria; Cyanobacteria; Nostocales; Nostocaceae; Nostoc.
OX   NCBI_TaxID=103690;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=21595285; PubMed=11759840;
RA   Kaneko T., Nakamura Y., Wolk C.P., Kuritz T., Sasamoto S.,
RA   Watanabe A., Iriguchi M., Ishikawa A., Kawashima K., Kimura T.,
RA   Kishida Y., Kohara M., Matsumoto M., Matsuno A., Muraki A.,
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RA   Nakazaki N., Shimpo S., Sugimoto M., Takazawa M., Yamada M.,
RA   Yasuda M., Tabata S.;
RT   "Complete genomic sequence of the filamentous nitrogen-fixing
RT   cyanobacterium Anabaena sp. strain PCC 7120.";
RL   DNA Res. 8:205-213(2001).
DR   EMBL; AP003583; BAB72797.1; -.
DR   PIR; AF1911; AF1911.
KW   Complete proteome.
SQ   SEQUENCE   360 AA;  40889 MW;  997D0E510693C4AB CRC64;

  Query Match             90.9%;  Score 30;  DB 2;  Length 360;
  Best Local Similarity   83.3%;  Pred. No. 3.3e+02;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              :|||||
Db         18 EDPRLF 23


RESULT 19
Q7YQV0
ID   Q7YQV0      PRELIMINARY;      PRT;   415 AA.
AC   Q7YQV0;
DT   01-OCT-2003 (TrEMBLrel. 25, Created)
DT   01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT   01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE   Interphotoreceptor retinoid binding protein (Fragment).
OS   Perameles gunnii (Eastern barred bandicoot).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Metatheria; Peramelemorphia; Peramelidae; Perameles.
OX   NCBI_TaxID=37737;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=22761259; PubMed=12878458; DOI=10.1016/S1055-7903(03)00122-2;
RA   Amrine-Madsen H., Scally M., Westerman M., Stanhope M.J.,
RA   Krajewski C., Springer M.S.;
RT   "Nuclear gene sequences provide evidence for the monophyly of
RT   australidelphian marsupials.";
RL   Mol. Phylogenet. Evol. 28:186-196(2003).
DR   EMBL; AY243437; AAP50825.1; -.
DR   GO; GO:0004872; F:receptor activity; IEA.
DR   GO; GO:0008236; F:serine-type peptidase activity; IEA.
DR   GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
DR   InterPro; IPR005151; Peptidase_S41.
DR   Pfam; PF03572; Peptidase_S41; 1.
DR   SMART; SM00245; TSPc; 1.
KW   Receptor.
FT   NON_TER       1      1
FT   NON_TER     415    415
SQ   SEQUENCE   415 AA;  45715 MW;  D16067E24C2F8C1A CRC64;

  Query Match             90.9%;  Score 30;  DB 2;  Length 415;
  Best Local Similarity   83.3%;  Pred. No. 3.9e+02;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              :|||||
Db        330 EDPRLF 335


RESULT 20
Q8TX77
ID   Q8TX77      PRELIMINARY;      PRT;   420 AA.
AC   Q8TX77;
DT   01-JUN-2002 (TrEMBLrel. 21, Created)
DT   01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
DT   01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE   Prephenate dehydrogenase.
GN   Name=tyrA_2; OrderedLocusNames=MK0798;
OS   Methanopyrus kandleri.
OC   Archaea; Euryarchaeota; Methanopyri; Methanopyrales; Methanopyraceae;
OC   Methanopyrus.
OX   NCBI_TaxID=2320;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=AV19 / DSM 6324 / JCM 9639;
RX   MEDLINE=21927647; PubMed=11930014; DOI=10.1073/pnas.032671499;
RA   Slesarev A.I., Mezhevaya K.V., Makarova K.S., Polushin N.N.,
RA   Shcherbinina O.V., Shakhova V.V., Belova G.I., Aravind L.,
RA   Natale D.A., Rogozin I.B., Tatusov R.L., Wolf Y.I., Stetter K.O.,
RA   Malykh A.G., Koonin E.V., Kozyavkin S.A.;
RT   "The complete genome of hyperthermophile Methanopyrus kandleri AV19
RT   and monophyly of archaeal methanogens.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:4644-4649(2002).
DR   EMBL; AE010371; AAM02012.1; -.
DR   GO; GO:0004665; F:prephenate dehydrogenase (NADP+) activity; IEA.
DR   GO; GO:0006571; P:tyrosine biosynthesis; IEA.
DR   Pfam; PF02153; PDH; 1.
DR   PROSITE; PS01034; GLYCOSYL_HYDROL_F16; UNKNOWN_1.
KW   Complete proteome.
SQ   SEQUENCE   420 AA;  46754 MW;  D7043CF19B24C201 CRC64;

  Query Match             90.9%;  Score 30;  DB 2;  Length 420;
  Best Local Similarity   83.3%;  Pred. No. 3.9e+02;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              |||||:
Db        219 QDPRLY 224


RESULT 21
O18858
ID   O18858      PRELIMINARY;      PRT;   425 AA.
AC   O18858;
DT   01-JAN-1998 (TrEMBLrel. 05, Created)
DT   01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
DT   01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE   Interphotoreceptor retinoid binding protein (Fragment).
OS   Echymipera kalubu (Kalubu echymipera).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Metatheria; Peramelemorphia; Peroryctidae; Echymipera.
OX   NCBI_TaxID=42733;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=98054307; PubMed=9391099; DOI=10.1073/pnas.94.25.13754;
RA   Springer M.S., Burk A., Kavanagh J.R., Waddell V.G., Stanhope M.J.;
RT   "The interphotoreceptor retinoid binding protein gene in therian
RT   mammals: implications for higher level relationships and evidence for
RT   loss of function in the marsupial mole.";
RL   Proc. Natl. Acad. Sci. U.S.A. 94:13754-13759(1997).
DR   EMBL; AF025383; AAB82278.1; -.
DR   GO; GO:0004872; F:receptor activity; IEA.
DR   GO; GO:0008236; F:serine-type peptidase activity; IEA.
DR   GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
DR   InterPro; IPR005151; Peptidase_S41.
DR   Pfam; PF03572; Peptidase_S41; 1.
DR   SMART; SM00245; TSPc; 1.
KW   Receptor.
FT   NON_TER       1      1
FT   NON_TER     425    425
SQ   SEQUENCE   425 AA;  46884 MW;  CE678568E3ECD869 CRC64;

  Query Match             90.9%;  Score 30;  DB 2;  Length 425;
  Best Local Similarity   83.3%;  Pred. No. 3.9e+02;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              :|||||
Db        340 EDPRLF 345


RESULT 22
Q6QT50
ID   Q6QT50      PRELIMINARY;      PRT;   576 AA.
AC   Q6QT50;
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DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   FucA.
GN   Name=fucA;
OS   Streptococcus gordonii.
OC   Bacteria; Firmicutes; Lactobacillales; Streptococcaceae;
OC   Streptococcus.
OX   NCBI_TaxID=1302;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=V288;
RA   Kilic A.O., Tao L., Zhang Y., Lei Y., Khammanivong A., Herzberg M.C.;
RT   "Involvement of Streptococcus gordonii Beta-Glucoside Metabolism
RT   Systems in Adhesion, Biofilm Formation, and In Vivo Gene Expression.";
RL   J. Bacteriol. 186:4246-4253(2004).
DR   EMBL; AY526569; AAS19690.1; -.
DR   GO; GO:0007155; P:cell adhesion; IEA.
DR   InterPro; IPR000421; FA58_C.
DR   InterPro; IPR008979; Gal_bind_like.
DR   Pfam; PF00754; F5_F8_type_C; 1.
DR   PROSITE; PS50022; FA58C_3; 1.
SQ   SEQUENCE   576 AA;  65478 MW;  DDF095F1235ACAC6 CRC64;

  Query Match             90.9%;  Score 30;  DB 2;  Length 576;
  Best Local Similarity   83.3%;  Pred. No. 5.5e+02;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              :|||||
Db         54 EDPRLF 59


RESULT 23
CAN5_HUMAN
ID   CAN5_HUMAN     STANDARD;      PRT;   640 AA.
AC   O15484; O00263;
DT   28-FEB-2003 (Rel. 41, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   25-OCT-2004 (Rel. 45, Last annotation update)
DE   Calpain 5 (EC 3.4.22.-) (nCL-3) (htra-3).
GN   Name=CAPN5;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Brain;
RX   MEDLINE=98042481; PubMed=9367857; DOI=10.1006/bbrc.1997.7571;
RA   Mugita N., Kimura Y., Ogawa M., Saya H., Nakao M.;
RT   "Identification of a novel, tissue-specific calpain htra-3; a human
RT   homologue of the Caenorhabditis elegans sex determination gene.";
RL   Biochem. Biophys. Res. Commun. 239:845-850(1997).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Pancreas;
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [3]
RP   SEQUENCE OF 1-633 FROM N.A.
RC   TISSUE=Hippocampus;
RX   MEDLINE=97480729; PubMed=9339374; DOI=10.1006/geno.1997.4870;
RA   Dear T.N., Matena K., Vingron M., Boehm T.;
RT   "A new subfamily of vertebrate calpains lacking a calmodulin-like
RT   domain: implications for calpain regulation and evolution.";
RL   Genomics 45:175-184(1997).
CC   -!- CATALYTIC ACTIVITY: Broad endopeptidase specificity.
CC   -!- TISSUE SPECIFICITY: Expressed in many tissues.
CC   -!- SIMILARITY: Belongs to the peptidase C2 family.
CC   -!- SIMILARITY: Contains 1 C2 domain.
CC   -!- SIMILARITY: Contains 1 calpain catalytic domain.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; U94346; AAC51869.1; -.
DR   EMBL; BC018123; AAH18123.1; -.
DR   EMBL; Y10552; CAA71584.1; -.
DR   HSSP; P17655; 1KFX.
DR   MEROPS; C02.011; -.
DR   Genew; HGNC:1482; CAPN5.
DR   MIM; 602537; -.
DR   GO; GO:0004198; F:calpain activity; TAS.
DR   GO; GO:0007165; P:signal transduction; TAS.
DR   InterPro; IPR000008; C2.
DR   InterPro; IPR008973; C2_CaLB.
DR   InterPro; IPR000169; Pept_cys_acsite.
DR   InterPro; IPR001300; Peptidase_C2.
DR   Pfam; PF00168; C2; 1.
DR   Pfam; PF01067; Calpain_III; 1.
DR   Pfam; PF00648; Peptidase_C2; 1.
DR   PRINTS; PR00704; CALPAIN.
DR   SMART; SM00239; C2; 1.
DR   SMART; SM00720; calpain_III; 1.
DR   SMART; SM00230; CysPc; 1.
DR   PROSITE; PS00499; C2_DOMAIN_1; FALSE_NEG.
DR   PROSITE; PS50004; C2_DOMAIN_2; FALSE_NEG.
DR   PROSITE; PS50203; CALPAIN_CAT; 1.
DR   PROSITE; PS00640; THIOL_PROTEASE_ASN; FALSE_NEG.
DR   PROSITE; PS00139; THIOL_PROTEASE_CYS; 1.
DR   PROSITE; PS00639; THIOL_PROTEASE_HIS; FALSE_NEG.
KW   Hydrolase; Thiol protease.
FT   DOMAIN       26    343       Calpain catalytic.
FT   DOMAIN      344    496       Domain III.
FT   DOMAIN      518    619       C2 domain.
FT   ACT_SITE     81     81       By similarity.
FT   ACT_SITE    252    252       By similarity.
FT   ACT_SITE    284    284       By similarity.
FT   CONFLICT     18     18       R -> Q (in Ref. 1).
FT   CONFLICT     51     51       W -> R (in Ref. 3).
FT   CONFLICT    112    115       EKPN -> RKAQ (in Ref. 1).
FT   CONFLICT    128    131       FGEW -> LGM (in Ref. 1).
FT   CONFLICT    138    138       D -> E (in Ref. 1).
FT   CONFLICT    502    502       E -> K (in Ref. 1).
SQ   SEQUENCE   640 AA;  73168 MW;  7A3A9A1A920410BC CRC64;

  Query Match             90.9%;  Score 30;  DB 1;  Length 640;
  Best Local Similarity   83.3%;  Pred. No. 6.1e+02;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
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              :|||||
Db         59 EDPRLF 64


RESULT 24
Q6ZRM8
ID   Q6ZRM8      PRELIMINARY;      PRT;   680 AA.
AC   Q6ZRM8;
DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   Hypothetical protein FLJ46245.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Testis;
RA   Ota T., Nakagawa S., Senoh A., Mizuguchi H., Inagaki H., Sugiyama T.,
RA   Irie R., Otsuki T., Sato H., Wakamatsu A., Ishii S., Yamamoto J.,
RA   Isono Y., Kawai-Hio Y., Saito K., Nishikawa T., Kimura K.,
RA   Yamashita H., Matsuo K., Nakamura Y., Sekine M., Kikuchi H., Kanda K.,
RA   Wagatsuma M., Murakawa K., Kanehori K., Takahashi-Fujii A., Oshima A.,
RA   Sugiyama A., Kawakami B., Suzuki Y., Sugano S., Nagahari K.,
RA   Masuho Y., Nagai K., Isogai T.;
RL   Submitted (JUL-2003) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AK128124; BAC87282.1; -.
DR   HSSP; P17655; 1KFX.
DR   GO; GO:0005622; C:intracellular; IEA.
DR   GO; GO:0004198; F:calpain activity; IEA.
DR   GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
DR   InterPro; IPR000008; C2.
DR   InterPro; IPR001300; Peptidase_C2.
DR   InterPro; IPR000169; Pept_cys_acsite.
DR   Pfam; PF00168; C2; 1.
DR   Pfam; PF01067; Calpain_III; 1.
DR   Pfam; PF00648; Peptidase_C2; 1.
DR   PRINTS; PR00704; CALPAIN.
DR   SMART; SM00239; C2; 1.
DR   SMART; SM00720; calpain_III; 1.
DR   SMART; SM00230; CysPc; 1.
DR   PROSITE; PS50203; CALPAIN_CAT; 1.
DR   PROSITE; PS00139; THIOL_PROTEASE_CYS; UNKNOWN_1.
SQ   SEQUENCE   680 AA;  77308 MW;  D6D470897ED15FC1 CRC64;

  Query Match             90.9%;  Score 30;  DB 2;  Length 680;
  Best Local Similarity   83.3%;  Pred. No. 6.5e+02;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              :|||||
Db         99 EDPRLF 104


RESULT 25
Q99MW4
ID   Q99MW4      PRELIMINARY;      PRT;   722 AA.
AC   Q99MW4;
DT   01-JUN-2001 (TrEMBLrel. 17, Created)
DT   01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT   01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE   Transcriptional repressor Scml2.
GN   Name=Scml2;
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Testis;
RA   Wang P.J., McCarrey J.R., Yang F., Page D.C.;
RL   Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF285577; AAK31956.1; -.
DR   HSSP; Q9UQR0; 1OI1.
DR   MGD; MGI:1340042; Scml2.
DR   GO; GO:0005634; C:nucleus; IEA.
DR   GO; GO:0045449; P:regulation of transcription; IEA.
DR   InterPro; IPR004092; Mbt.
DR   Pfam; PF02820; MBT; 2.
DR   SMART; SM00561; MBT; 2.
SQ   SEQUENCE   722 AA;  79054 MW;  129377E307063D44 CRC64;

  Query Match             90.9%;  Score 30;  DB 2;  Length 722;
  Best Local Similarity   83.3%;  Pred. No. 6.9e+02;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              :|||||
Db        327 EDPRLF 332


RESULT 26
Q6PHT2
ID   Q6PHT2      PRELIMINARY;      PRT;   722 AA.
AC   Q6PHT2;
DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   Sex comb on midleg-like 2.
GN   Name=Scml2;
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6; TISSUE=Brain;
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA   Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
RA   Jones S.J., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6; TISSUE=Brain;
RA   Strausberg R.;
RL   Submitted (AUG-2003) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; BC056382; AAH56382.1; -.
DR   GO; GO:0005634; C:nucleus; IEA.
DR   GO; GO:0045449; P:regulation of transcription; IEA.
DR   InterPro; IPR004092; Mbt.
DR   Pfam; PF02820; MBT; 2.
DR   SMART; SM00561; MBT; 2.
SQ   SEQUENCE   722 AA;  80102 MW;  E1162FBCE95E5FED CRC64;

  Query Match             90.9%;  Score 30;  DB 2;  Length 722;
  Best Local Similarity   83.3%;  Pred. No. 6.9e+02;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;
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Qy          1 QDPRLF 6
              :|||||
Db        369 EDPRLF 374


RESULT 27
Q79E26
ID   Q79E26      PRELIMINARY;      PRT;   729 AA.
AC   Q79E26;
DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   Cellulose synthase.
GN   Name=celA;
OS   Agrobacterium tumefaciens.
OC   Bacteria; Proteobacteria; Alphaproteobacteria; Rhizobiales;
OC   Rhizobiaceae; Rhizobium/Agrobacterium group; Agrobacterium.
OX   NCBI_TaxID=358;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=95164506; PubMed=7860585;
RA   Matthysse A.G., White S., Lightfoot R.;
RT   "Genes required for cellulose synthesis in Agrobacterium
RT   tumefaciens.";
RL   J. Bacteriol. 177:1069-1075(1995).
DR   EMBL; L38609; AAC41435.1; -.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0016759; F:cellulose synthase activity; IEA.
DR   GO; GO:0006011; P:UDP-glucose metabolism; IEA.
DR   InterPro; IPR003919; Cell_synth_A.
DR   InterPro; IPR001173; Glyco_trans_2.
DR   Pfam; PF00535; Glycos_transf_2; 1.
DR   PRINTS; PR01439; CELLSNTHASEA.
SQ   SEQUENCE   729 AA;  81646 MW;  BC085F3BC3F65485 CRC64;

  Query Match             90.9%;  Score 30;  DB 2;  Length 729;
  Best Local Similarity   83.3%;  Pred. No. 7e+02;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              :|||||
Db        253 EDPRLF 258


RESULT 28
Q8UAR4
ID   Q8UAR4      PRELIMINARY;      PRT;   729 AA.
AC   Q8UAR4; Q7CS47;
DT   01-JUN-2002 (TrEMBLrel. 21, Created)
DT   01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
DT   25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
DE   Cellulose synthase (AGR_L_3021p).
GN   Name=celA; OrderedLocusNames=AGR_L_3021, Atu3309;
OS   Agrobacterium tumefaciens (strain C58 / ATCC 33970).
OC   Bacteria; Proteobacteria; Alphaproteobacteria; Rhizobiales;
OC   Rhizobiaceae; Rhizobium/Agrobacterium group; Agrobacterium.
OX   NCBI_TaxID=176299;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Dupont;
RX   MEDLINE=21608550; PubMed=11743193; DOI=10.1126/science.1066804;
RA   Wood D.W., Setubal J.C., Kaul R., Monks D.E., Kitajima J.P.,
RA   Okura V.K., Zhou Y., Chen L., Wood G.E., Almeida N.F. Jr., Woo L.,
RA   Chen Y., Paulsen I.T., Eisen J.A., Karp P.D., Bovee D. Sr.,
RA   Chapman P., Clendenning J., Deatherage G., Gillet W., Grant C.,
RA   Kutyavin T., Levy R., Li M.-J., McClelland E., Palmieri A.,
RA   Raymond C., Rouse G., Saenphimmachak C., Wu Z., Romero P., Gordon D.,
RA   Zhang S., Yoo H., Tao Y., Biddle P., Jung M., Krespan W., Perry M.,
RA   Gordon-Kamm B., Liao L., Kim S., Hendrick C., Zhao Z.-Y., Dolan M.,
RA   Chumley F., Tingey S.V., Tomb J.-F., Gordon M.P., Olson M.V.,
RA   Nester E.W.;
RT   "The genome of the natural genetic engineer Agrobacterium tumefaciens
RT   C58.";
RL   Science 294:2317-2323(2001).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Cereon;
RX   MEDLINE=21608551; PubMed=11743194; DOI=10.1126/science.1066803;
RA   Goodner B., Hinkle G., Gattung S., Miller N., Blanchard M.,
RA   Qurollo B., Goldman B.S., Cao Y., Askenazi M., Halling C., Mullin L.,
RA   Houmiel K., Gordon J., Vaudin M., Iartchouk O., Epp A., Liu F.,
RA   Wollam C., Allinger M., Doughty D., Scott C., Lappas C., Markelz B.,
RA   Flanagan C., Crowell C., Gurson J., Lomo C., Sear C., Strub G.,
RA   Cielo C., Slater S.;
RT   "Genome sequence of the plant pathogen and biotechnology agent
RT   Agrobacterium tumefaciens C58.";
RL   Science 294:2323-2328(2001).
DR   EMBL; AE009260; AAL44122.1; -.
DR   EMBL; AE008352; AAK90083.1; -.
DR   PIR; A98320; A98320.
DR   PIR; AD2963; AD2963.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0016759; F:cellulose synthase activity; IEA.
DR   GO; GO:0006011; P:UDP-glucose metabolism; IEA.
DR   InterPro; IPR003919; Cell_synth_A.
DR   InterPro; IPR001173; Glyco_trans_2.
DR   Pfam; PF00535; Glycos_transf_2; 1.
DR   PRINTS; PR01439; CELLSNTHASEA.
KW   Complete proteome.
SQ   SEQUENCE   729 AA;  81632 MW;  BC085F3FD7A71585 CRC64;

  Query Match             90.9%;  Score 30;  DB 2;  Length 729;
  Best Local Similarity   83.3%;  Pred. No. 7e+02;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              :|||||
Db        253 EDPRLF 258


RESULT 29
Q853F2
ID   Q853F2      PRELIMINARY;      PRT;   752 AA.
AC   Q853F2;
DT   01-JUN-2003 (TrEMBLrel. 24, Created)
DT   01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Gp129.
GN   Name=129;
OS   Mycobacteriophage Bxz1.
OC   Viruses; dsDNA viruses, no RNA stage; Caudovirales; Myoviridae.
OX   NCBI_TaxID=205877;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=22592660; PubMed=12705866; DOI=10.1016/S0092-8674(03)00233-2;
RA   Pedulla M.L., Ford M.E., Houtz J.M., Karthikeyan T., Wadsworth C.,
RA   Lewis J.A., Jacobs-Sera D., Falbo J., Gross J., Pannunzio N.R.,
RA   Brucker W., Kumar V., Kandasamy J., Keenan L., Bardarov S.,
RA   Kriakov J., Lawrence J.G., Jacobs W.R. Jr., Hendrix R.W.,
RA   Hatfull G.F.;
RT   "Origins of highly mosaic mycobacteriophage genomes.";
RL   Cell 113:171-182(2003).
DR   EMBL; AY129337; AAN16785.1; -.
SQ   SEQUENCE   752 AA;  78455 MW;  8B1FD2AB8BEC6A12 CRC64;

  Query Match             90.9%;  Score 30;  DB 2;  Length 752;
  Best Local Similarity   83.3%;  Pred. No. 7.2e+02;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              |||||:
Db        149 QDPRLY 154


RESULT 30
Q8BYC8
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ID   Q8BYC8      PRELIMINARY;      PRT;   845 AA.
AC   Q8BYC8;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Mus musculus 0 day neonate thymus cDNA, RIKEN full-length enriched
DE   library, clone:A430105A14 product:similar to TRANSCRIPTIONAL REPRESSOR
DE   SCML2.
GN   Name=Scml2;
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Thymus;
RX   MEDLINE=99279253; PubMed=10349636; DOI=10.1016/S0076-6879(99)03004-9;
RA   Carninci P., Hayashizaki Y.;
RT   "High-efficiency full-length cDNA cloning.";
RL   Meth. Enzymol. 303:19-44(1999).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Thymus;
RX   MEDLINE=21085660; PubMed=11217851; DOI=10.1038/35055500;
RA   RIKEN FANTOM Consortium;
RT   "Functional annotation of a full-length mouse cDNA collection.";
RL   Nature 409:685-690(2001).
RN   [3]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Thymus;
RA   The FANTOM Consortium,
RA   the RIKEN Genome Exploration Research Group Phase I & II Team;
RT   "Analysis of the mouse transcriptome based on functional annotation of
RT   60,770 full-length cDNAs.";
RL   Nature 420:563-573(2002).
RN   [4]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Thymus;
RX   MEDLINE=20499374; PubMed=11042159; DOI=10.1101/gr.145100;
RA   Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K., Itoh M.,
RA   Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;
RT   "Normalization and subtraction of cap-trapper-selected cDNAs to
RT   prepare full-length cDNA libraries for rapid discovery of new genes.";
RL   Genome Res. 10:1617-1630(2000).
RN   [5]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Thymus;
RX   MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;
RA   Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,
RA   Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M.,
RA   Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A.,
RA   Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K.,
RA   Fujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M.,
RA   Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,
RA   Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;
RT   "RIKEN integrated sequence analysis (RISA) system-384-format
RT   sequencing pipeline with 384 multicapillary sequencer.";
RL   Genome Res. 10:1757-1771(2000).
RN   [6]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Thymus;
RA   Adachi J., Aizawa K., Akimura T., Arakawa T., Bono H., Carninci P.,
RA   Fukuda S., Furuno M., Hanagaki T., Hara A., Hashizume W.,
RA   Hayashida K., Hayatsu N., Hiramoto K., Hiraoka T., Hirozane T.,
RA   Hori F., Imotani K., Ishii Y., Itoh M., Kagawa I., Kasukawa T.,
RA   Katoh H., Kawai J., Kojima Y., Kondo S., Konno H., Kouda M., Koya S.,
RA   Kurihara C., Matsuyama T., Miyazaki A., Murata M., Nakamura M.,
RA   Nishi K., Nomura K., Numazaki R., Ohno M., Ohsato N., Okazaki Y.,
RA   Saito R., Saitoh H., Sakai C., Sakai K., Sakazume N., Sano H.,
RA   Sasaki D., Shibata K., Shinagawa A., Shiraki T., Sogabe Y., Tagami M.,
RA   Tagawa A., Takahashi F., Takaku-Akahira S., Takeda Y., Tanaka T.,
RA   Tomaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y.;
RL   Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AK040521; BAC30615.1; -.
DR   HSSP; Q9UQR0; 1OI1.
DR   MGD; MGI:1340042; Scml2.
DR   GO; GO:0005634; C:nucleus; IEA.
DR   GO; GO:0045449; P:regulation of transcription; IEA.
DR   InterPro; IPR004092; Mbt.
DR   Pfam; PF02820; MBT; 2.
DR   SMART; SM00561; MBT; 2.
SQ   SEQUENCE   845 AA;  92881 MW;  CD7069E25EFA6C9F CRC64;

  Query Match             90.9%;  Score 30;  DB 2;  Length 845;
  Best Local Similarity   83.3%;  Pred. No. 8.2e+02;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              :|||||
Db        370 EDPRLF 375


RESULT 31
Q44418
ID   Q44418      PRELIMINARY;      PRT;   861 AA.
AC   Q44418; Q44419;
DT   01-NOV-1996 (TrEMBLrel. 01, Created)
DT   01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Cellulose synthase.
GN   Name=celA;
OS   Agrobacterium tumefaciens.
OC   Bacteria; Proteobacteria; Alphaproteobacteria; Rhizobiales;
OC   Rhizobiaceae; Rhizobium/Agrobacterium group; Agrobacterium.
OX   NCBI_TaxID=358;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=95164506; PubMed=7860585;
RA   Matthysse A.G., White S., Lightfoot R.;
RT   "Genes required for cellulose synthesis in Agrobacterium
RT   tumefaciens.";
RL   J. Bacteriol. 177:1069-1075(1995).
DR   EMBL; L38609; AAC41436.1; -.
DR   PIR; I39714; I39714.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0016759; F:cellulose synthase activity; IEA.
DR   GO; GO:0006011; P:UDP-glucose metabolism; IEA.
DR   InterPro; IPR003919; Cell_synth_A.
DR   InterPro; IPR001173; Glyco_trans_2.
DR   Pfam; PF00535; Glycos_transf_2; 1.
DR   PRINTS; PR01439; CELLSNTHASEA.
SQ   SEQUENCE   861 AA;  98197 MW;  24B98F388ABDEAF0 CRC64;

  Query Match             90.9%;  Score 30;  DB 2;  Length 861;
  Best Local Similarity   83.3%;  Pred. No. 8.4e+02;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              :|||||
Db        385 EDPRLF 390


RESULT 32
AXO1_MOUSE
ID   AXO1_MOUSE     STANDARD;      PRT;  1040 AA.
AC   Q61330; Q6NZJ4; Q7TSJ5;
DT   16-OCT-2001 (Rel. 40, Created)
DT   25-OCT-2004 (Rel. 45, Last sequence update)
DT   25-OCT-2004 (Rel. 45, Last annotation update)
DE   Contactin 2 precursor (Axonin-1) (Axonal glycoprotein TAG-1)
DE   (Transient axonal glycoprotein 1) (TAX-1).
GN   Name=Cntn2; Synonyms=Tax;
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
```

```
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6; TISSUE=Brain;
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [2]
RP   SEQUENCE OF 664-881 FROM N.A.
RC   STRAIN=ICR; TISSUE=Embryo;
RA   Wolfer D., Giger R.J.;
RL   Submitted (SEP-1994) to the EMBL/GenBank/DDBJ databases.
CC   -!- FUNCTION: May play a role in the initial growth and guidance of
CC       axons. May be involved in cell adhesion (By similarity).
CC   -!- SUBCELLULAR LOCATION: Attached to the neuronal membrane by a GPI-
CC       anchor and is also released from neurons (By similarity).
CC   -!- SIMILARITY: Contains 4 fibronectin type III domains.
CC   -!- SIMILARITY: Contains 6 immunoglobulin-like C2-type domains.
CC   ---------------------------------------------------------------------
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CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; BC066106; AAH66106.1; -.
DR   EMBL; BC053033; AAH53033.1; -.
DR   EMBL; X81365; CAA57130.1; -.
DR   MGD; MGI:104518; Cntn2.
DR   GO; GO:0030424; C:axon; IDA.
DR   InterPro; IPR003961; FN_III.
DR   InterPro; IPR008957; FN_III-like.
DR   InterPro; IPR003599; Ig.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   Pfam; PF00041; fn3; 4.
DR   Pfam; PF00047; ig; 5.
DR   SMART; SM00060; FN3; 4.
DR   SMART; SM00409; IG; 6.
DR   SMART; SM00408; IGc2; 5.
DR   PROSITE; PS50853; FN3; 4.
DR   PROSITE; PS50835; IG_LIKE; 6.
KW   Cell adhesion; Glycoprotein; GPI-anchor; Immunoglobulin domain;
KW   Lipoprotein; Membrane; Repeat; Signal.
FT   SIGNAL        1     30       By similarity.
FT   CHAIN        31   1014       Contactin 2.
FT   PROPEP     1015   1040       Removed in mature form (Potential).
FT   DOMAIN       39    130       Ig-like C2-type 1.
FT   DOMAIN      135    224       Ig-like C2-type 2.
FT   DOMAIN      241    324       Ig-like C2-type 3.
FT   DOMAIN      329    413       Ig-like C2-type 4.
FT   DOMAIN      419    506       Ig-like C2-type 5.
FT   DOMAIN      511    605       Ig-like C2-type 6.
FT   DOMAIN      608    614       Gly/Pro-rich.
FT   DOMAIN      609    705       Fibronectin type-III 1.
FT   DOMAIN      712    809       Fibronectin type-III 2.
FT   DOMAIN      814    910       Fibronectin type-III 3.
FT   DOMAIN      914   1004       Fibronectin type-III 4.
FT   SITE        796    798       Cell attachment site (Potential).
FT   DISULFID     63    113       By similarity.
FT   DISULFID    157    209       By similarity.
FT   DISULFID    263    308       By similarity.
FT   DISULFID    350    397       By similarity.
FT   CARBOHYD     78     78       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    200    200       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    206    206       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    463    463       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    479    479       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    500    500       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    527    527       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    777    777       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    832    832       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    920    920       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    942    942       N-linked (GlcNAc. . .) (Potential).
FT   LIPID      1014   1014       GPI-anchor amidated serine (Potential).
FT   CONFLICT    665    665       I -> M (in Ref. 2).
FT   CONFLICT    861    861       A -> R (in Ref. 2).
FT   CONFLICT    881    881       Y -> N (in Ref. 2).
SQ   SEQUENCE   1040 AA;  113216 MW;  012C05DDF7F97462 CRC64;

  Query Match             90.9%;  Score 30;  DB 1;  Length 1040;
  Best Local Similarity   83.3%;  Pred. No. 1e+03;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              :|||||
Db        234 EDPRLF 239


RESULT 33
AXO1_RAT
ID   AXO1_RAT       STANDARD;      PRT;  1040 AA.
AC   P22063;
DT   01-AUG-1991 (Rel. 19, Created)
DT   01-AUG-1991 (Rel. 19, Last sequence update)
DT   25-OCT-2004 (Rel. 45, Last annotation update)
DE   Contactin 2 precursor (Axonin-1) (Axonal glycoprotein TAG-1)
DE   (Transient axonal glycoprotein 1) (TAX-1).
GN   Name=Cntn2; Synonyms=Tax1;
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   SEQUENCE FROM N.A., AND SEQUENCE OF 31-41.
RC   TISSUE=Spinal cord;
RX   MEDLINE=90199890; PubMed=2317872; DOI=10.1016/0092-8674(90)90223-2;
RA   Furley A.J., Morton S.B., Manalo D., Karagogeos D., Dodd J.,
RA   Jessell T.M.;
RT   "The axonal glycoprotein TAG-1 is an immunoglobulin superfamily member
RT   with neurite outgrowth-promoting activity.";
RL   Cell 61:157-170(1990).
CC   -!- FUNCTION: May play a role in the initial growth and guidance of
CC       axons. May be involved in cell adhesion.
CC   -!- SUBCELLULAR LOCATION: Attached to the neuronal membrane by a GPI-
CC       anchor and is also released from neurons.
CC   -!- TISSUE SPECIFICITY: In neural tissues in embryos, and in adult
CC       brain, spinal cord and cerebellum.
CC   -!- DEVELOPMENTAL STAGE: Transiently expressed on a subset of axons in
CC       the developing rat nervous system.
CC   -!- SIMILARITY: Contains 4 fibronectin type III domains.
CC   -!- SIMILARITY: Contains 6 immunoglobulin-like C2-type domains.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
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CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------------
DR   EMBL; M31725; AAA42201.1; -.
DR   PIR; A34695; A34695.
DR   HSSP; P28685; 1CS6.
DR   RGD; 3821; Cntn2.
DR   InterPro; IPR003961; FN_III.
DR   InterPro; IPR008957; FN_III-like.
DR   InterPro; IPR003962; FnIII_subd.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   Pfam; PF00041; fn3; 4.
DR   Pfam; PF00047; ig; 6.
DR   PRINTS; PR00014; FNTYPEIII.
DR   SMART; SM00060; FN3; 4.
DR   SMART; SM00408; IGc2; 5.
DR   PROSITE; PS50853; FN3; 4.
DR   PROSITE; PS50835; IG_LIKE; 6.
KW   Cell adhesion; Direct protein sequencing; Glycoprotein; GPI-anchor;
KW   Immunoglobulin domain; Lipoprotein; Membrane; Repeat; Signal.
FT   SIGNAL        1     30
FT   CHAIN        31   1015       Contactin 2.
FT   PROPEP     1016   1040       Removed in mature form (Potential).
FT   DOMAIN       39    130       Ig-like C2-type 1.
FT   DOMAIN      135    224       Ig-like C2-type 2.
FT   DOMAIN      241    324       Ig-like C2-type 3.
FT   DOMAIN      329    413       Ig-like C2-type 4.
FT   DOMAIN      419    506       Ig-like C2-type 5.
FT   DOMAIN      511    605       Ig-like C2-type 6.
FT   DOMAIN      608    614       Gly/Pro-rich.
FT   DOMAIN      609    705       Fibronectin type-III 1.
FT   DOMAIN      712    809       Fibronectin type-III 2.
FT   DOMAIN      814    910       Fibronectin type-III 3.
FT   DOMAIN      914   1004       Fibronectin type-III 4.
FT   SITE        796    798       Cell attachment site (Potential).
FT   DISULFID     63    113       By similarity.
FT   DISULFID    157    209       By similarity.
FT   DISULFID    263    308       By similarity.
FT   DISULFID    350    397       By similarity.
FT   CARBOHYD     78     78       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    200    200       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    206    206       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    463    463       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    479    479       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    500    500       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    527    527       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    777    777       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    832    832       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    920    920       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    942    942       N-linked (GlcNAc. . .) (Potential).
FT   LIPID      1015   1015       GPI-anchor amidated alanine (Potential).
SQ   SEQUENCE   1040 AA;  113042 MW;  6E707EF6614CB4FB CRC64;

  Query Match             90.9%;  Score 30;  DB 1;  Length 1040;
  Best Local Similarity   83.3%;  Pred. No. 1e+03;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              :|||||
Db        234 EDPRLF 239


RESULT 34
Q8QNP4
ID   Q8QNP4      PRELIMINARY;      PRT;  1133 AA.
AC   Q8QNP4;
DT   01-JUN-2002 (TrEMBLrel. 21, Created)
DT   01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
DT   01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE   EsV-1-17.
GN   Name=ORF 17;
OS   Ectocarpus siliculosus virus.
OC   Viruses; dsDNA viruses, no RNA stage; Phycodnaviridae; Phaeovirus.
OX   NCBI_TaxID=37665;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=EsV-1;
RA   Delaroque N., Bothe G., Pohl T., Knippers R., Mueller D.G., Boland W.;
RL   Submitted (MAR-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF204951; AAK14443.1; -.
DR   HSSP; P07207; 1OT8.
DR   InterPro; IPR002110; ANK.
DR   Pfam; PF00023; Ank; 6.
DR   PRINTS; PR01415; ANKYRIN.
DR   SMART; SM00248; ANK; 5.
DR   PROSITE; PS50088; ANK_REPEAT; 5.
DR   PROSITE; PS50297; ANK_REP_REGION; 1.
KW   ANK repeat.
SQ   SEQUENCE   1133 AA;  127342 MW;  D9C69E98BB09CB83 CRC64;

  Query Match             90.9%;  Score 30;  DB 2;  Length 1133;
  Best Local Similarity   83.3%;  Pred. No. 1.1e+03;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              :|||||
Db        849 EDPRLF 854


RESULT 35
Q6AR76
ID   Q6AR76      PRELIMINARY;      PRT;   121 AA.
AC   Q6AR76;
DT   25-OCT-2004 (TrEMBLrel. 28, Created)
DT   25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
DT   25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
DE   Hypothetical protein.
GN   OrderedLocusNames=DP0419;
OS   Desulfotalea psychrophila.
OC   Bacteria; Proteobacteria; Deltaproteobacteria; Desulfobacterales;
OC   Desulfobulbaceae; Desulfotalea.
OX   NCBI_TaxID=84980;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=LSv54 / DSM 12343;
RX   PubMed=15305914;
RA   Rabus R., Ruepp A., Frickey T., Rattei T., Fartmann B., Stark M.,
RA   Bauer M., Zibat A., Lombardot T., Becker I., Amann J., Gellner K.,
RA   Teeling H., Leuschner W.D., Gloeckner F.-O., Lupas A.N., Amann R.,
RA   Klenk H.-P.;
RT   "The genome of Desulfotalea psychrophila, a sulfate-reducing bacterium
RT   from permanently cold Arctic sediments.";
RL   Environ. Microbiol. 6:887-902(2004).
DR   EMBL; CR522870; CAG35148.1; -.
KW   Complete proteome.
SQ   SEQUENCE   121 AA;  14391 MW;  F72CDD2A208F1FE0 CRC64;

  Query Match             87.9%;  Score 29;  DB 2;  Length 121;
  Best Local Similarity   83.3%;  Pred. No. 1.7e+02;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              :|||||
Db         43 KDPRLF 48


RESULT 36
Q6Y7H6
ID   Q6Y7H6      PRELIMINARY;      PRT;   181 AA.
AC   Q6Y7H6;
DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   P44 paralog (Fragment).
```

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OS   Anaplasma phagocytophilum (Ehrlichia phagocytophila).
OC   Bacteria; Proteobacteria; Alphaproteobacteria; Rickettsiales;
OC   Anaplasmataceae; Anaplasma.
OX   NCBI_TaxID=948;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Feral Goat;
RX   PubMed=14993322; DOI=10.1099/mic.0.26648-0;
RA   Casey A.N., Birtles R.J., Radford A.D., Bown K.J., French N.P.,
RA   Woldehiwet Z., Ogden N.H.;
RT   "Groupings of highly similar major surface protein (p44)-encoding
RT   paralogues: a potential index of genetic diversity amongst isolates of
RT   Anaplasma phagocytophilum.";
RL   Microbiology 150:727-734(2004).
DR   EMBL; AY176538; AAO32008.1; -.
DR   InterPro; IPR002566; Surface_Ag_msp4.
DR   Pfam; PF01617; Surface_Ag_2; 1.
FT   NON_TER       1      1
FT   NON_TER     181    181
SQ   SEQUENCE   181 AA;  18589 MW;  0BDE390B76CA923D CRC64;

  Query Match             87.9%;  Score 29;  DB 2;  Length 181;
  Best Local Similarity   83.3%;  Pred. No. 2.7e+02;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              |:||||
Db         88 QEPRLF 93


RESULT 37
Q9HY46
ID   Q9HY46      PRELIMINARY;      PRT;   212 AA.
AC   Q9HY46;
DT   01-MAR-2001 (TrEMBLrel. 16, Created)
DT   01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT   01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE   Probable transcriptional regulator.
GN   OrderedLocusNames=PA3574;
OS   Pseudomonas aeruginosa.
OC   Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
OC   Pseudomonadaceae; Pseudomonas.
OX   NCBI_TaxID=287;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=ATCC 15692 / PAO1;
RX   MEDLINE=20437337; PubMed=10984043; DOI=10.1038/35023079;
RA   Stover C.K., Pham X.-Q.T., Erwin A.L., Mizoguchi S.D., Warrener P.,
RA   Hickey M.J., Brinkman F.S.L., Hufnagle W.O., Kowalik D.J., Lagrou M.,
RA   Garber R.L., Goltry L., Tolentino E., Westbrock-Wadman S., Yuan Y.,
RA   Brody L.L., Coulter S.N., Folger K.R., Kas A., Larbig K., Lim R.M.,
RA   Smith K.A., Spencer D.H., Wong G.K.-S., Wu Z., Paulsen I.T.,
RA   Reizer J., Saier M.H., Hancock R.E.W., Lory S., Olson M.V.;
RT   "Complete genome sequence of Pseudomonas aeruginosa PAO1, an
RT   opportunistic pathogen.";
RL   Nature 406:959-964(2000).
CC   -!- SIMILARITY: Contains 1 HTH tetR-type DNA-binding domain.
DR   EMBL; AE004778; AAG06962.1; -.
DR   PIR; A83199; A83199.
DR   GO; GO:0003700; F:transcription factor activity; IEA.
DR   GO; GO:0006355; P:regulation of transcription, DNA-dependent; IEA.
DR   InterPro; IPR009057; Homeodomain_like.
DR   InterPro; IPR001647; HTH_TetR.
DR   Pfam; PF00440; TetR_N; 1.
DR   PRINTS; PR00455; HTHTETR.
DR   PROSITE; PS01081; HTH_TETR_1; 1.
KW   Complete proteome; DNA-binding; Transcription;
KW   Transcription regulation.
SQ   SEQUENCE   212 AA;  24520 MW;  CFE7C6415145E01D CRC64;

  Query Match             87.9%;  Score 29;  DB 2;  Length 212;
  Best Local Similarity   83.3%;  Pred. No. 3.1e+02;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              :|||||
Db        179 RDPRLF 184


RESULT 38
O67058
ID   O67058      PRELIMINARY;      PRT;   217 AA.
AC   O67058;
DT   01-AUG-1998 (TrEMBLrel. 07, Created)
DT   01-AUG-1998 (TrEMBLrel. 07, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Hypothetical protein aq_913.
GN   OrderedLocusNames=AQ_913;
OS   Aquifex aeolicus.
OC   Bacteria; Aquificae; Aquificales; Aquificaceae; Aquifex.
OX   NCBI_TaxID=63363;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=VF5;
RX   MEDLINE=98196666; PubMed=9537320; DOI=10.1038/32831;
RA   Deckert G., Warren P.V., Gaasterland T., Young W.G., Lenox A.L.,
RA   Graham D.E., Overbeek R., Snead M.A., Keller M., Aujay M., Huber R.,
RA   Feldman R.A., Short J.M., Olsen G.J., Swanson R.V.;
RT   "The complete genome of the hyperthermophilic bacterium Aquifex
RT   aeolicus.";
RL   Nature 392:353-358(1998).
DR   EMBL; AE000713; AAC07020.1; -.
DR   PIR; G70378; G70378.
DR   InterPro; IPR003807; DUF202.
DR   Pfam; PF02656; DUF202; 1.
KW   Complete proteome.
SQ   SEQUENCE   217 AA;  24766 MW;  F8C4B8FFADAB1053 CRC64;

  Query Match             87.9%;  Score 29;  DB 2;  Length 217;
  Best Local Similarity   83.3%;  Pred. No. 3.2e+02;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              |:||||
Db         11 QEPRLF 16


RESULT 39
Q8L361
ID   Q8L361      PRELIMINARY;      PRT;   218 AA.
AC   Q8L361;
DT   01-OCT-2002 (TrEMBLrel. 22, Created)
DT   01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT   01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE   Response regulator.
GN   Name=rgfA;
OS   Streptococcus agalactiae.
OC   Bacteria; Firmicutes; Lactobacillales; Streptococcaceae;
OC   Streptococcus.
OX   NCBI_TaxID=1311;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=O90R;
RX   MEDLINE=21950560; PubMed=11953380;
RX   DOI=10.1128/IAI.70.5.2434-2440.2002;
RA   Spellerberg B., Rozdzinski E., Martin S., Weber-Heynemann J.,
RA   Lutticken R.;
RT   "rgf encodes a novel two-component signal transduction system of
RT   Streptococcus agalactiae.";
RL   Infect. Immun. 70:2434-2440(2002).
DR   EMBL; AF390107; AAM22581.1; -.
DR   GO; GO:0003677; F:DNA binding; IEA.
DR   GO; GO:0000156; F:two-component response regulator activity; IEA.
DR   GO; GO:0007600; P:sensory perception; IEA.
DR   GO; GO:0000160; P:two-component signal transduction system (p. . .; IEA.
DR   InterPro; IPR011006; CheY_like.
```

```
DR   InterPro; IPR007492; LytTR.
DR   InterPro; IPR001789; Response_reg.
DR   InterPro; IPR008246; RR_LytTR_AlgR.
DR   Pfam; PF04397; LytTR; 1.
DR   Pfam; PF00072; Response_reg; 1.
DR   PIRSF; PIRSF006198; RR_LytTR_AlgR; 1.
DR   ProDom; PD000039; Response_reg; 1.
DR   PROSITE; PS50930; HTH_LYTTR; 1.
DR   PROSITE; PS50110; RESPONSE_REGULATORY; 1.
KW   Phosphorylation; Sensory transduction.
SQ   SEQUENCE   218 AA;  25488 MW;  E61E631E0744A348 CRC64;

  Query Match             87.9%;  Score 29;  DB 2;  Length 218;
  Best Local Similarity   83.3%;  Pred. No. 3.2e+02;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              |:||||
Db        159 QEPRLF 164


RESULT 40
PYRH_CHLPN
ID   PYRH_CHLPN     STANDARD;      PRT;   248 AA.
AC   Q9Z7K7; Q9JQF4;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   25-OCT-2004 (Rel. 45, Last annotation update)
DE   Uridylate kinase (EC 2.7.4.-) (UK) (Uridine monophosphate kinase) (UMP
DE   kinase).
GN   Name=pyrH; OrderedLocusNames=CPn0698, CP0048, CpB0725;
OS   Chlamydia pneumoniae (Chlamydophila pneumoniae).
OC   Bacteria; Chlamydiae; Chlamydiales; Chlamydiaceae; Chlamydophila.
OX   NCBI_TaxID=83558;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=CWL029;
RX   MEDLINE=99206606; PubMed=10192388; DOI=10.1038/7716;
RA   Kalman S., Mitchell W.P., Marathe R., Lammel C.J., Fan J., Hyman R.W.,
RA   Olinger L., Grimwood J., Davis R.W., Stephens R.S.;
RT   "Comparative genomes of Chlamydia pneumoniae and C. trachomatis.";
RL   Nat. Genet. 21:385-389(1999).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=AR39;
RX   MEDLINE=20150255; PubMed=10684935; DOI=10.1093/nar/28.6.1397;
RA   Read T.D., Brunham R.C., Shen C., Gill S.R., Heidelberg J.F.,
RA   White O., Hickey E.K., Peterson J.D., Utterback T.R., Berry K.J.,
RA   Bass S., Linher K.D., Weidman J.F., Khouri H.M., Craven B., Bowman C.,
RA   Dodson R.J., Gwinn M.L., Nelson W.C., DeBoy R.T., Kolonay J.F.,
RA   McClarty G., Salzberg S.L., Eisen J.A., Fraser C.M.;
RT   "Genome sequences of Chlamydia trachomatis MoPn and Chlamydia
RT   pneumoniae AR39.";
RL   Nucleic Acids Res. 28:1397-1406(2000).
RN   [3]
RP   SEQUENCE FROM N.A.
RC   STRAIN=J138;
RX   MEDLINE=20330349; PubMed=10871362; DOI=10.1093/nar/28.12.2311;
RA   Shirai M., Hirakawa H., Kimoto M., Tabuchi M., Kishi F., Ouchi K.,
RA   Shiba T., Ishii K., Hattori M., Kuhara S., Nakazawa T.;
RT   "Comparison of whole genome sequences of Chlamydia pneumoniae J138
RT   from Japan and CWL029 from USA.";
RL   Nucleic Acids Res. 28:2311-2314(2000).
RN   [4]
RP   SEQUENCE FROM N.A.
RC   STRAIN=TW-183;
RA   Geng M.M., Schuhmacher A., Muehldorfer I., Bensch K.W., Schaefer K.P.,
RA   Schneider S., Pohl T., Essig A., Marre R., Melchers K.;
RT   "The genome sequence of Chlamydia pneumoniae TW183 and comparison with
RT   other Chlamydia strains based on whole genome sequence analysis.";
RL   Submitted (MAY-2002) to the EMBL/GenBank/DDBJ databases.
CC   -!- FUNCTION: Catalyzes the phosphorylation of UMP to UDP (By
CC       similarity).
CC   -!- CATALYTIC ACTIVITY: ATP + UMP = ADP + UDP.
CC   -!- PATHWAY: Pyrimidine biosynthesis; conversion of UMP to CTP; first
CC       step.
CC   -!- SIMILARITY: Belongs to the UMP kinase family.
CC   ----------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; AE001652; AAD18837.1; -.
DR   EMBL; AE002167; AAF37941.1; -.
DR   EMBL; AP002547; BAA98905.1; -.
DR   EMBL; AE017159; AAP98654.1; -.
DR   PIR; B72045; B72045.
DR   PIR; G86577; G86577.
DR   PHCI-2DPAGE; Q9Z7K7; -.
DR   TIGR; CP0048; -.
DR   HAMAP; MF_01220; -; 1.
DR   InterPro; IPR001048; Aa_kinase.
DR   Pfam; PF00696; AA_kinase; 1.
KW   Complete proteome; Kinase; Pyrimidine biosynthesis; Transferase.
SQ   SEQUENCE   248 AA;  27098 MW;  3DF3D2DDDE6E4B79 CRC64;

  Query Match             87.9%;  Score 29;  DB 1;  Length 248;
  Best Local Similarity   83.3%;  Pred. No. 3.7e+02;
  Matches    5;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              :|||||
Db        171 KDPRLF 176


Search completed: September 26, 2005, 11:01:28
Job time : 132 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: September 26, 2005, 10:36:56 ; Search time 129.273 Seconds
(without alignments)
17.951 Million cell updates/sec

Title: US-10-754-485-44
Perfect score: 33
Sequence: 1 QDPRLF 6

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2105692 seqs, 386760381 residues

Total number of hits satisfying chosen parameters: 2105692

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 150 summaries

Database : A_Geneseq_16Dec04:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	33	100.0	6	4	AAG65704	Aag65704 Peptide e
2	33	100.0	6	5	AAE29203	Aae29203 Peptide e
3	33	100.0	6	5	ABG60661	Abg60661 Polyimmun
4	33	100.0	6	8	ADQ81877	Adq81877 Lung dise
5	33	100.0	9	4	AAG65706	Aag65706 Peptide e
6	33	100.0	10	5	ABG60665	Abg60665 Polyimmun
7	33	100.0	16	2	AAW64615	Aaw64615 Human pol
8	33	100.0	16	2	AAW61592	Aaw61592 Polyimmun
9	33	100.0	16	2	AAW85768	Aaw85768 Polyimmun
10	33	100.0	16	5	ABG94837	Abg94837 Human pol
11	33	100.0	16	5	ABG68266	Abg68266 Targettin
12	33	100.0	16	8	ADH61901	Adh61901 Human tar
13	33	100.0	18	5	ABG60662	Abg60662 Polyimmun
14	33	100.0	23	5	ABG60663	Abg60663 Polyimmun
15	33	100.0	24	5	ABG60664	Abg60664 Polyimmun
16	33	100.0	61	2	AAW43099	Aaw43099 Polymeric
17	33	100.0	61	2	AAW43098	Aaw43098 Polymeric
18	33	100.0	90	4	AAG65712	Aag65712 Human pol
19	33	100.0	94	6	ABP55311	Abp55311 Human pol
20	33	100.0	94	6	ABP55310	Abp55310 Polyimmun
21	33	100.0	94	6	ABP55312	Abp55312 Simian po
22	33	100.0	94	7	ADL99570	Adl99570 GST-pIgR
23	33	100.0	102	7	ADL99566	Adl99566 GST-pIgR
24	33	100.0	103	7	ADL99567	Adl99567 GST-pIgR
25	33	100.0	162	7	ADE08351	Ade08351 Novel pro
26	33	100.0	243	5	AAE29187	Aae29187 Cynomolgu
27	33	100.0	243	6	ABP55306	Abp55306 Polyimmun
28	33	100.0	243	6	ABP55315	Abp55315 Human pol
29	33	100.0	243	6	ABP55314	Abp55314 Polyimmun
30	33	100.0	243	6	ABP55308	Abp55308 Simian po
31	33	100.0	243	6	ABP55317	Abp55317 Simian po
32	33	100.0	243	6	ABP55307	Abp55307 Human pol
33	33	100.0	243	6	ABP55316	Abp55316 Simian po
34	33	100.0	272	2	AAY73981	Aay73981 Human pro
35	33	100.0	602	7	ADE97373	Ade97373 Human sec
36	33	100.0	607	2	AAW95601	Aaw95601 Human sec
37	33	100.0	607	2	AAY34099	Aay34099 Partial a
38	33	100.0	607	5	AAM47867	Aam47867 Human sec
39	33	100.0	686	8	ABM84869	Abm84869 Human dia
40	33	100.0	686	8	ABM84871	Abm84871 Human dia
41	33	100.0	686	8	ABM84870	Abm84870 Human dia
42	33	100.0	686	8	ABM84868	Abm84868 Human dia
43	33	100.0	686	8	ABM84867	Abm84867 Human dia
44	33	100.0	686	8	ABM84866	Abm84866 Human dia
45	33	100.0	746	2	AAW03178	Aaw03178 Human pol
46	33	100.0	764	4	AAG65695	Aag65695 Human pol
47	33	100.0	764	4	AAG65711	Aag65711 Human pol
48	33	100.0	764	5	ABJ04350	Abj04350 Human col
49	33	100.0	764	6	ADA10941	Ada10941 Human cDN
50	30	90.9	82	4	ABG13091	Abg13091 Novel hum
51	30	90.9	107	4	AAB31951	Aab31951 Amino aci
52	30	90.9	114	4	AAU60829	Aau60829 Propionib
53	30	90.9	114	6	ABM57348	Abm57348 Propionib
54	30	90.9	122	3	AAB12501	Aab12501 Bovine SE
55	30	90.9	122	5	AAU80120	Aau80120 Cow senso
56	30	90.9	193	2	AAR50121	Aar50121 CD27L. 3/
57	30	90.9	193	6	ABR58598	Abr58598 Human can
58	30	90.9	193	6	ABR42310	Abr42310 Human CD7
59	30	90.9	193	6	ABU03592	Abu03592 Human exp
60	30	90.9	193	6	ABU03591	Abu03591 Human exp
61	30	90.9	193	6	ABU03598	Abu03598 Human exp
62	30	90.9	193	6	ABU03597	Abu03597 Human exp
63	30	90.9	193	6	ABU03593	Abu03593 Human exp
64	30	90.9	193	6	ABU03596	Abu03596 Human exp
65	30	90.9	193	6	ABU03590	Abu03590 Human exp
66	30	90.9	193	6	AAO30309	Aao30309 Human CD2
67	30	90.9	193	7	ADC35196	Adc35196 Human TNF
68	30	90.9	193	7	ADD89057	Add89057 TAT243. 1
69	30	90.9	193	7	ABW02273	Abw02273 Human CD7
70	30	90.9	193	7	ADJ68306	Adj68306 Human hea
71	30	90.9	193	7	ADN38992	Adn38992 Cancer/an
72	30	90.9	193	8	ADQ18655	Adq18655 Human sof
73	30	90.9	216	2	AAR53971	Aar53971 CD27-L ty
74	30	90.9	216	2	AAR50122	Aar50122 sCD27L-3.
75	30	90.9	216	2	AAW41180	Aaw41180 CD27 liga
76	30	90.9	216	6	ABU03595	Abu03595 Human exp
77	30	90.9	216	6	ABU03594	Abu03594 Human exp
78	30	90.9	380	4	ABG05586	Abg05586 Novel hum
79	30	90.9	420	7	ADM26192	Adm26192 Hyperther
80	30	90.9	557	7	ADM03799	Adm03799 Human pro
81	30	90.9	639	7	ADF70230	Adf70230 Human Cal
82	30	90.9	640	2	AAW63833	Aaw63833 Human cal
83	30	90.9	640	7	ADJ70387	Adj70387 Human hea
84	30	90.9	680	8	ADR09840	Adr09840 Human pro
85	30	90.9	717	8	ADP43645	Adp43645 Human PMM
86	30	90.9	827	4	AAU07864	Aau07864 Polypepti
87	30	90.9	1040	7	ADD47171	Add47171 Rat Prote
88	30	90.9	1040	8	ABO84727	Abo84727 Mouse can
89	29	87.9	52	4	AAO07084	Aao07084 Human pol
90	29	87.9	68	4	AAM33578	Aam33578 Peptide #
91	29	87.9	68	4	AAM73376	Aam73376 Human bon
92	29	87.9	68	4	ABG55093	Abg55093 Human liv
93	29	87.9	68	5	ABG43230	Abg43230 Human pep
94	29	87.9	76	5	ADK36947	Adk36947 Novel hum
95	29	87.9	129	5	ABP06570	Abp06570 Human ORF
96	29	87.9	179	4	ABU52988	Abu52988 Human nuc
97	29	87.9	212	6	ABJ18817	Abj18817 Pseudomon
98	29	87.9	230	7	ABO73318	Abo73318 Pseudomon

99	29	87.9	248	2	AAY35322	Aay35322 Chlamydia
100	29	87.9	248	6	ABU26772	Abu26772 Protein e
101	29	87.9	250	5	ABP26241	Abp26241 Streptoco
102	29	87.9	367	8	ADS24002	Ads24002 Bacterial
103	29	87.9	394	7	ADF04968	Adf04968 Bacterial
104	29	87.9	430	4	ABB64119	Abb64119 Drosophil
105	29	87.9	592	3	AAY90951	Aay90951 Cenarchae
106	29	87.9	598	4	ADM20043	Adm20043 Protein e
107	29	87.9	644	6	ABU41016	Abu41016 Protein e
108	29	87.9	743	4	ABU52986	Abu52986 Human nuc
109	29	87.9	774	5	AAG80778	Aag80778 Human exo
110	29	87.9	774	7	ADJ69787	Adj69787 Human hea
111	29	87.9	777	4	ADM19787	Adm19787 Protein e
112	29	87.9	1270	8	ADN24298	Adn24298 Bacterial
113	29	87.9	1291	8	ADN24296	Adn24296 Bacterial
114	29	87.9	1307	2	AAR99255	Aar99255 Aspergill
115	29	87.9	1318	8	ADN24295	Adn24295 Bacterial
116	29	87.9	1327	8	ADN24297	Adn24297 Bacterial
117	29	87.9	1420	5	ABP73769	Abp73769 Candida a
118	28	84.8	6	4	AAG65705	Aag65705 Peptide e
119	28	84.8	9	4	AAG65710	Aag65710 Peptide e
120	28	84.8	11	4	AAG65707	Aag65707 Peptide e
121	28	84.8	12	4	AAG65708	Aag65708 Peptide e
122	28	84.8	87	5	ABP32552	Abp32552 Human onc
123	28	84.8	90	4	AAU40360	Aau40360 Propionib
124	28	84.8	90	6	ABM36879	Abm36879 Propionib
125	28	84.8	93	4	AAG65714	Aag65714 Rat polym
126	28	84.8	106	3	AAB33977	Aab33977 Human sec
127	28	84.8	115	2	AAW89934	Aaw89934 Antigen f
128	28	84.8	117	7	ADL99568	Adl99568 GST-pIgR
129	28	84.8	118	4	AAE03477	Aae03477 Human gen
130	28	84.8	118	4	AAE03435	Aae03435 Human gen
131	28	84.8	118	5	ABG63364	Abg63364 Human alb
132	28	84.8	118	5	ABG63362	Abg63362 Human alb
133	28	84.8	118	8	ADL76629	Adl76629 Albumin f
134	28	84.8	118	8	ADL76627	Adl76627 Albumin f
135	28	84.8	121	6	ABP71151	Abp71151 Human pro
136	28	84.8	121	6	ABP71153	Abp71153 Mouse pro
137	28	84.8	130	2	AAW90020	Aaw90020 Expressed
138	28	84.8	143	3	AAG28982	Aag28982 Arabidops
139	28	84.8	147	3	AAG28981	Aag28981 Arabidops
140	28	84.8	149	2	AAY12467	Aay12467 Human 5'
141	28	84.8	155	2	AAW98359	Aaw98359 H. pylori
142	28	84.8	164	8	ADS30156	Ads30156 Bacterial
143	28	84.8	185	7	ABO71143	Abo71143 Pseudomon
144	28	84.8	222	3	AAW90884	Aaw90884 Human pro
145	28	84.8	232	3	AAG28980	Aag28980 Arabidops
146	28	84.8	234	4	ABG25668	Abg25668 Novel hum
147	28	84.8	239	2	AAR43910	Aar43910 Nerve gro
148	28	84.8	240	2	AAR26273	Aar26273 NGF2/NT-3
149	28	84.8	240	2	AAR43937	Aar43937 Sequence
150	28	84.8	240	2	AAR56451	Aar56451 Human NGF

ALIGNMENTS

RESULT 1
AAG65704
ID AAG65704 standard; peptide; 6 AA.
XX
AC AAG65704;
XX
DT 07-JAN-2002 (first entry)
XX
DE Peptide epitope of pIgR.
XX
KW Polymeric immunoglobulin receptor; pIgR; ligand; therapeutic;
KW carcinoma diagnosis; veterinary; epitope.
XX
OS Homo sapiens.
XX
PN WO200172846-A2.
XX
PD 04-OCT-2001.
XX
PF 26-MAR-2001; 2001WO-US009699.
XX
PR 27-MAR-2000; 2000US-0192197P.
PR 27-MAR-2000; 2000US-0192198P.
XX
PA (REGC) UNIV CALIFORNIA.
XX
PI Mostov KE, Chapin SJ, Richman-Eisenstat J;
XX
DR WPI; 2001-611619/70.
XX
PT New ligands binding to a specific region of a polymeric immunoglobulin
PT receptor, useful for transporting therapeutic or diagnostic compositions
PT into or across cells expressing pIgR e.g. in drug delivery.
XX
PS Claim 9; Page 83; 102pp; English.
XX
CC The invention provides ligands that bind specifically to a region of an
CC animal cell polymeric immunoglobulin receptor (pIgR). The pIgR cleaves to
CC produce a stalk region remaining attached to the cell and a secretory
CC component existing in the organ of interest in several forms. The ligands
CC do not bind to the stalk or the most abundant form of the secretory
CC component present in the organ under physiological conditions. The
CC ligands are useful for transporting therapeutic or diagnostic
CC compositions into or across cells expressing pIgR, useful to introduce or
CC transport ligands such as antibodies and/or to deliver biologically
CC active components such as proteins, nucleic acids or detectable labels.
CC They are used to deliver therapeutic compositions to mucosal surfaces
CC such as the gastro-intestinal tract, respiratory system etc. in humans.
CC They are also useful to label cells expressing pIgR, e.g. to distinguish
CC epithelial cells from a mixed cell population in pathology studies or to
CC aid in carcinoma diagnosis (since pIgR expression is reduced in
CC carcinomas relative to normal epithelium). They can also be used to
CC deliver veterinary compositions, especially in mammals such as farm,
CC domestic or wild mammals or birds e.g. birds reared for human
CC consumption. Sequences AAG65704-710 represent specific examples of pIgR
CC peptide epitopes to which the ligands of the invention bind to
XX
SQ Sequence 6 AA;

Query Match 100.0%; Score 33; DB 4; Length 6;
Best Local Similarity 100.0%; Pred. No. 1.8e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 QDPRLF 6
              ||||||
Db          1 QDPRLF 6
```

RESULT 2
AAE29203
ID AAE29203 standard; peptide; 6 AA.
XX
AC AAE29203;
XX
DT 27-JAN-2003 (first entry)
XX
DE Peptide epitope used to illustrate the method of the invention.
XX
KW Polyimmunoglobulin receptor; pIgR; immune response; prophylaxis; cancer;
KW Crohn's disease; eating disorder; therapy; vaccine; infection; receptor;
KW asthma; allergy; epitope.
XX
OS Unidentified.
XX
PN WO200274787-A2.
XX
PD 26-SEP-2002.
XX
PF 01-FEB-2002; 2002WO-US003059.

XX
PR 02-FEB-2001; 2001US-0266182P.
XX
PA (ARIZ-) ARIZEKE PHARM INC.
PA (HOUS/) HOUSTON L L.
PA (SHER/) SHERIDAN P L.
XX
PI Houston LL, Sheridan PL;
XX
DR WPI; 2002-759877/82.
XX
PT Identifying small molecules that specifically bind a transcytotic or pIgR
PT target molecule, useful for treating and/or preventing disorders such as
PT cancer, asthma, pathogenic infections, allergies and Crohn's disease.
XX
PS Example 2; Page 71; 114pp; English.
XX
CC The invention relates to a method of identifying biologically active
CC small molecules that specifically bind a transcytotic molecule or a
CC polyimmunoglobulin receptor (pIgR) target molecule. The method involves
CC contacting candidate small molecules with at least 1 transcytotic
CC molecule or at least one pIgR target molecule so that complexes
CC comprising the transcytotic molecule or pIgR target molecule and a small
CC molecule can form, and identifying the small molecules present in the
CC complexes. The methods and compositions of the present invention are used
CC for identifying, characterising, distinguishing, derivatising, optimising
CC and using compounds that are or comprise a ligand that binds a pIgR
CC molecule used for therapeutic and prophylactic applications, particularly
CC in vaccination and in diseases where a protective immune response is
CC needed or in diseases such as cancer, asthma, pathogenic infections,
CC allergies, Crohn's disease and eating disorders. The present sequence is
CC a peptide epitope used to illustrate the method of the invention
XX
SQ Sequence 6 AA;

Query Match 100.0%; Score 33; DB 5; Length 6;
Best Local Similarity 100.0%; Pred. No. 1.8e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 QDPRLF 6
||||||
Db 1 QDPRLF 6

RESULT 3
ABG60661
ID ABG60661 standard; peptide; 6 AA.
XX
AC ABG60661;
XX
DT 13-AUG-2002 (first entry)
XX
DE Polyimmunoglobulin receptor (pIgR) associated peptide #5.
XX
KW Transcellular transport; transcytotic transport; paracellular transport;
KW respiratory system disorder; lung cancer; tumour; asthma;
KW pathogenic infection; allergy-related disorder;
KW gastrointestinal tract disorder; gastrointestinal hormone disorder;
KW Chron's disease; eating disorder; polyimmunoglobulin receptor; pIgR.
XX
OS Unidentified.
XX
PN WO200228408-A2.
XX
PD 11-APR-2002.
XX
PF 02-OCT-2001; 2001WO-US030832.
XX
PR 02-OCT-2000; 2000US-0237929P.
PR 13-NOV-2000; 2000US-0248478P.
PR 14-NOV-2000; 2000US-0248819P.
PR 09-FEB-2001; 2001US-0267601P.
XX
PA (ARIZ-) ARIZEKE PHARM INC.
XX
PI Houston LL, Sheridan PJ, Hawley S, Glynn JM, Chapin S, Basu A;
XX
DR WPI; 2002-416628/44.
XX
PT Complex useful for transporting active agent through epithelial barrier,
PT has biologically active portion and target element directed to ligand
PT that confers e.g. transcytotic properties to agent specific to ligand.
XX
PS Example 23; Page 280; 379pp; English.
XX
CC The invention described a complex or compound (I) comprising a
CC biologically active portion and a target element (II) directed to a
CC ligand that confers transcellular, transcytotic or paracellular
CC transporting properties to an agent specifically bound to the ligand,
CC where (II) is not an antibody. Alternatively, (I) comprises two or more
CC (II) directed to one or more ligands. (I) is useful for delivering a
CC biologically active agent to an animal, for transporting an active agent
CC through an epithelial or mucosal barrier, and for treating or identifying
CC a disease in an animal e.g. diseases of the respiratory system including
CC lung cancer and tumours, asthma, pathogenic infections, allergy-related
CC disorders, gastrointestinal tract disorders, disorders relating to
CC gastrointestinal hormones, Chron's disease, eating disorders and any
CC disease or disorder involving polyimmunoglobulin receptor (pIgR)
CC displaying cells. This sequence represents a peptide associated with the
CC transport of biologically active agents across cellular barriers
XX
SQ Sequence 6 AA;

Query Match 100.0%; Score 33; DB 5; Length 6;
Best Local Similarity 100.0%; Pred. No. 1.8e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 QDPRLF 6
||||||
Db 1 QDPRLF 6

RESULT 4
ADQ81877
ID ADQ81877 standard; peptide; 6 AA.
XX
AC ADQ81877;
XX
DT 21-OCT-2004 (first entry)
XX
DE Lung disease treatment-related epitope peptide #8.
XX
KW lung disease; targeting element; apical; basolateral; transcytosis;
KW in vitro transcytotic assay; antimicrobial; antitubercular;
KW tuberculostatic; virucide; fungicide; antiinflammatory; respiratory-Gen;
KW antiasthmatic; respiratory tract infection; lung infection;
KW bacterial infection; tuberculosis; viral infection;
KW severe acute respiratory syndrome; SARS; fungal infection; pneumonia;
KW interstitium disorder; gas exchange disorder; blood circulation disorder;
KW airway disease; pleura disorder; Chronic Obstructive Pulmonary Disorder;
KW COPD; asthma; epitope.
XX
OS Unidentified.
XX
PN WO2004062603-A2.
XX
PD 29-JUL-2004.
XX
PF 09-JAN-2004; 2004WO-US000445.
XX
PR 09-JAN-2003; 2003US-0439373P.
PR 20-JUN-2003; 2003US-0480047P.
PR 12-AUG-2003; 2003US-0494841P.
XX
PA (ARIZ-) ARIZEKE PHARM INC.
XX

PI Henderson DR;
XX
DR WPI; 2004-553599/53.
XX
PT Treating or preventing a lung disease comprises administering to the
PT subject a compound comprising a therapeutic agent and a targeting element
PT directed to a ligand.
XX
PS Claim 42; Page 90; 108pp; English.
XX
CC This invention relates to a novel method of treating or preventing a lung
CC disease in a subject which comprises administering to the subject via a
CC pulmonary, oropharyngeal or nasopharyngeal route a compound comprising a
CC therapeutic agent and a targeting element directed to a ligand, where the
CC targeting element confers apical to basolateral transcytosis to the
CC therapeutic agent in an in vitro transcytotic assay. The therapeutic
CC agent used in the method may have antimicrobial, antitubercular,
CC tuberculostatic, virucide, fungicide, antiinflammatory, respiratory-Gen
CC or antiasthmatic activity. The method of the invention is useful for
CC treating or preventing a lung disease, for example a respiratory tract
CC infection, an infection of the lung, or a bacterial infection that causes
CC tuberculosis, a viral infection that causes severe acute respiratory
CC syndrome (SARS), fungal infection, causes pneumonia, a disorder of the
CC interstitium, a disorder of gas exchange or blood circulation, a disease
CC of the airways, a disorder of the pleura, Chronic Obstructive Pulmonary
CC Disorder (COPD) or asthma. The present sequence is that of a peptide
CC which may be used in the method of the invention.
XX
SQ Sequence 6 AA;

Query Match 100.0%; Score 33; DB 8; Length 6;
Best Local Similarity 100.0%; Pred. No. 1.8e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 QDPRLF 6
||||||
Db 1 QDPRLF 6

RESULT 5
AAG65706
ID AAG65706 standard; peptide; 9 AA.
XX
AC AAG65706;
XX
DT 07-JAN-2002 (first entry)
XX
DE Peptide epitope of pIgR.
XX
KW Polymeric immunoglobulin receptor; pIgR; ligand; therapeutic;
KW carcinoma diagnosis; veterinary; epitope.
XX
OS Homo sapiens.
XX
PN WO200172846-A2.
XX
PD 04-OCT-2001.
XX
PF 26-MAR-2001; 2001WO-US009699.
XX
PR 27-MAR-2000; 2000US-0192197P.
PR 27-MAR-2000; 2000US-0192198P.
XX
PA (REGC) UNIV CALIFORNIA.
XX
PI Mostov KE, Chapin SJ, Richman-Eisenstat J;
XX
DR WPI; 2001-611619/70.
XX
PT New ligands binding to a specific region of a polymeric immunoglobulin
PT receptor, useful for transporting therapeutic or diagnostic compositions
PT into or across cells expressing pIgR e.g. in drug delivery.
XX
PS Claim 9; Page 83; 102pp; English.
XX
CC The invention provides ligands that bind specifically to a region of an
CC animal cell polymeric immunoglobulin receptor (pIgR). The pIgR cleaves to
CC produce a stalk region remaining attached to the cell and a secretory
CC component existing in the organ of interest in several forms. The ligands
CC do not bind to the stalk or the most abundant form of the secretory
CC component present in the organ under physiological conditions. The
CC ligands are useful for transporting therapeutic or diagnostic
CC compositions into or across cells expressing pIgR, useful to introduce or
CC transport ligands such as antibodies and/or to deliver biologically
CC active components such as proteins, nucleic acids or detectable labels.
CC They are used to deliver therapeutic compositions to mucosal surfaces
CC such as the gastro-intestinal tract, respiratory system etc. in humans.
CC They are also useful to label cells expressing pIgR, e.g. to distinguish
CC epithelial cells from a mixed cell population in pathology studies or to
CC aid in carcinoma diagnosis (since pIgR expression is reduced in
CC carcinomas relative to normal epithelium). They can also be used to
CC deliver veterinary compositions, especially in mammals such as farm,
CC domestic or wild mammals or birds e.g. birds reared for human
CC consumption. Sequences AAG65704-710 represent specific examples of pIgR
CC peptide epitopes to which the ligands of the invention bind to
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 33; DB 4; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.8e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 QDPRLF 6
||||||
Db 4 QDPRLF 9

RESULT 6
ABG60665
ID ABG60665 standard; peptide; 10 AA.
XX
AC ABG60665;
XX
DT 13-AUG-2002 (first entry)
XX
DE Polyimmunoglobulin receptor (pIgR) associated peptide #9.
XX
KW Transcellular transport; transcytotic transport; paracellular transport;
KW respiratory system disorder; lung cancer; tumour; asthma;
KW pathogenic infection; allergy-related disorder;
KW gastrointestinal tract disorder; gastrointestinal hormone disorder;
KW Chron's disease; eating disorder; polyimmunoglobulin receptor; pIgR.
XX
OS Unidentified.
XX
PN WO200228408-A2.
XX
PD 11-APR-2002.
XX
PF 02-OCT-2001; 2001WO-US030832.
XX
PR 02-OCT-2000; 2000US-0237929P.
PR 13-NOV-2000; 2000US-0248478P.
PR 14-NOV-2000; 2000US-0248819P.
PR 09-FEB-2001; 2001US-0267601P.
XX
PA (ARIZ-) ARIZEKE PHARM INC.
XX
PI Houston LL, Sheridan PJ, Hawley S, Glynn JM, Chapin S, Basu A;
XX
DR WPI; 2002-416628/44.
XX
PT Complex useful for transporting active agent through epithelial barrier,
PT has biologically active portion and target element directed to ligand
PT that confers e.g. transcytotic properties to agent specific to ligand.
XX

PS Example 23; Page 281; 379pp; English.
XX
CC The invention described a complex or compound (I) comprising a
CC biologically active portion and a target element (II) directed to a
CC ligand that confers transcellular, transcytotic or paracellular
CC transporting properties to an agent specifically bound to the ligand,
CC where (II) is not an antibody. Alternatively, (I) comprises two or more
CC (II) directed to one or more ligands. (I) is useful for delivering a
CC biologically active agent to an animal, for transporting an active agent
CC through an epithelial or mucosal barrier, and for treating or identifying
CC a disease in an animal e.g. diseases of the respiratory system including
CC lung cancer and tumours, asthma, pathogenic infections, allergy-related
CC disorders, gastrointestinal tract disorders, disorders relating to
CC gastrointestinal hormones, Chron's disease, eating disorders and any
CC disease or disorder involving polyimmunoglobulin receptor (pIgR)
CC displaying cells. This sequence represents a peptide associated with the
CC transport of biologically active agents across cellular barriers
XX
SQ Sequence 10 AA;

Query Match 100.0%; Score 33; DB 5; Length 10;
Best Local Similarity 100.0%; Pred. No. 5.2;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 QDPRLF 6
||||||
Db 3 QDPRLF 8

RESULT 7
AAW64615
ID AAW64615 standard; protein; 16 AA.
XX
AC AAW64615;
XX
DT 03-NOV-1998 (first entry)
XX
DE Human polyimmunoglobulin receptor peptide fragment (aa 585-600).
XX
KW Target; imaging agent; epithelium; transepithelial transport; diagnosis;
KW transcytosis; disease; basolateral; internalisation; J chain.
XX
OS Homo sapiens.
XX
PN WO9830591-A1.
XX
PD 16-JUL-1998.
XX
PF 09-JAN-1998; 98WO-US000339.
XX
PR 10-JAN-1997; 97US-00782480.
XX
PA (EPIC-) EPICYTE PHARM INC.
XX
PI Hiatt AC, Hein MB, Fitchen JH;
XX
DR WPI; 1998-399066/34.
XX
PT New epithelial tissue targetting agent - used to deliver imaging agents
PT to an epithelial surface for internalisation; useful in diagnosis.
XX
PS Example 1c; Page 90; 118pp; English.
XX
CC This sequence represents a human polyimmunoglobulin receptor peptide
CC fragment which is used in a method involving the construction of a target
CC molecule from human J chain protein fragments. This construct is used in
CC a method to target imaging agents to epithelial surfaces at which they
CC may remain or undergo transepithelial transport via transcytosis. At
CC least one imaging agent is linked to the targeting molecule comprising a
CC polypeptide that (a) forms a closed covalent loop, (b) contains at least
CC 3, preferably 4, peptide domains having beta-sheet character separated by
CC domains lacking beta-sheet character and (c) is not full length dimeric
CC IgA. The imaging agents are useful in the diagnosis of disease. The
CC target molecule is also capable of specifically binding to a basolateral
CC factor associated with an epithelial surface to cause internalisation of
CC a biological agent linked to the target molecule
XX
SQ Sequence 16 AA;

Query Match 100.0%; Score 33; DB 2; Length 16;
Best Local Similarity 100.0%; Pred. No. 8.3;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 QDPRLF 6
||||||
Db 3 QDPRLF 8

RESULT 8
AAW61592
ID AAW61592 standard; peptide; 16 AA.
XX
AC AAW61592;
XX
DT 27-OCT-1998 (first entry)
XX
DE Polyimmunoglobulin receptor sequence fragment.
XX
KW J chain; targeting molecule; epithelial; beta-sheet; asthma; cancer;
KW inflammatory disorder; autoimmune disorder; celiac disease; colitis;
KW pneumonia; cystic fibrosis.
XX
OS Synthetic.
XX
PN WO9830592-A1.
XX
PD 16-JUL-1998.
XX
PF 09-JAN-1998; 98WO-US000542.
XX
PR 10-JAN-1997; 97US-00782481.
XX
PA (EPIC-) EPICYTE PHARM INC.
XX
PI Hein MB, Hiatt AC, Fitchen JH;
XX
DR WPI; 1998-399067/34.
XX
PT New epithelial tissue targetting agent - used to deliver biologically
PT active compounds to an epithelial surface for internalisation.
XX
PS Example 1; Page 49; 142pp; English.
XX
CC The polyimmunoglobulin receptor sequence is used in the synthesis of a
CC targeting molecule (TM). The TMs are used to target biological agents to
CC epithelial surfaces at which they can be internalised. The TMs comprise a
CC polypeptide that: (a) forms a closed covalent loop; (b) contains at least
CC 3, preferably 4, peptide domains having beta-sheet character separated by
CC domains lacking beta-sheet character; and (c) is not full length dimeric
CC IgA. The TMs are useful to prevent and/or treat diseases associated with
CC epithelial surfaces, e.g. asthma, cancer, (myco)bacterial, viral or
CC fungal infection, inflammatory disorders, autoimmune disorders, celiac
CC disease, colitis, pneumonia and cystic fibrosis
XX
SQ Sequence 16 AA;

Query Match 100.0%; Score 33; DB 2; Length 16;
Best Local Similarity 100.0%; Pred. No. 8.3;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 QDPRLF 6
||||||
Db 3 QDPRLF 8

RESULT 9

AAW85768
ID AAW85768 standard; peptide; 16 AA.
XX
AC AAW85768;
XX
DT 27-SEP-1999 (first entry)
XX
DE Polyimmunoglobulin receptor sequence.
XX
KW Targeting molecule; J chain; immunoglobulin; IgM; IgA; substrate;
KW epithelial cell; cancer; treatment; therapy;
KW non-small cell lung carcinoma; breast carcinoma; colon carcinoma;
KW ovarian carcinoma; prostate carcinoma; endometriosis; viral infection;
KW inflammation.
XX
OS Synthetic.
XX
PN WO9920310-A1.
XX
PD 29-APR-1999.
XX
PF 20-OCT-1998; 98WO-US022304.
XX
PR 20-OCT-1997; 97US-00954211.
XX
PA (EPIC-) EPICYTE PHARM INC.
XX
PI Hein MB, Hiatt AC, Fitchen JH;
XX
DR WPI; 1999-288174/24.
XX
PT Targeting molecule useful in drug delivery for treating cancer, viral
PT infection or inflammatory disorders.
XX
PS Example 1; Page 48; 102pp; English.
XX
CC A targeting agent for improving the delivery of drugs to target cells,
CC particularly for delivery of enzymes, binding agents, inhibitors, nucleic
CC acids, carbohydrates and lipids, is new. The targeting agent comprises a
CC polypeptide which forms a closed covalent loop and contains at least
CC three peptide domains having beta-sheet character, each of the domains
CC being separated by domains lacking beta-sheet character. The targeting
CC molecule preferably comprises all or a portion of a native J chain
CC sequence. J chain is a 15 kD protein that, in vivo, links IgM or IgA
CC monomers to form pentameric IgM or dimeric IgA. The polypeptide is linked
CC to at least one biological agent which is capable of entering and killing
CC a non-polarised epithelial cell. The targeting molecule may be linked to
CC the biological agent by a substrate for an intracellular or extracellular
CC enzyme which is associated with or secreted by the non-polarised target
CC cell. The targeting molecule can be used in a pharmaceutical composition
CC for treating a patient afflicted with a disease associated with non-
CC polarised epithelial cells, especially cancer e.g non-small cell lung
CC carcinoma, breast carcinoma, colon carcinoma, ovarian carcinoma, prostate
CC carcinoma and endometriosis, viral infection or inflammatory disorders.
CC This polyimmunoglobulin receptor sequence may be attached to the N-
CC terminal ends of the targeting molecules described
XX
SQ Sequence 16 AA;

Query Match 100.0%; Score 33; DB 2; Length 16;
Best Local Similarity 100.0%; Pred. No. 8.3;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 QDPRLF 6
||||||
Db 3 QDPRLF 8

RESULT 10
ABG94837
ID ABG94837 standard; peptide; 16 AA.
XX
AC ABG94837;
XX
DT 02-DEC-2002 (first entry)
XX
DE Human polyimmunoglobulin receptor (pIgR) peptide #1.
XX
KW Targeting molecule; TM; enzyme inhibitor; epithelial basolateral factor;
KW J chain; non-polarised epithelial cell; NPE; cancer; endometriosis;
KW non-small cell lung carcinoma; breast carcinoma; inflammatory disorder;
KW ovarian carcinoma; prostate carcinoma; viral infection; colon carcinoma;
KW human.
XX
OS Homo sapiens.
XX
PN US6440419-B1.
XX
PD 27-AUG-2002.
XX
PF 20-OCT-1998; 98US-00176741.
XX
PR 20-OCT-1997; 97US-00954211.
XX
PA (EPIC-) EPICYTE PHARM INC.
XX
PI Hein MB, Hiatt AC, Fitchen JH;
XX
DR WPI; 2002-697093/75.
XX
PT New targeting molecule useful for delivering enzyme inhibitor into non-
PT polarized epithelial cells of patient afflicted with disease associated
PT with non-polarized epithelial cells, linked to enzyme inhibitor.
XX
PS Example 1; Col 29; 47pp; English.
XX
CC The present invention relates to a new targeting molecule linked to at
CC least one enzyme inhibitor, where the targeting molecule is a J chain or
CC its portion that specifically binds to an epithelial basolateral factor
CC such that the targeting molecule linked to the enzyme inhibitor is
CC capable of entering and killing a non-polarised epithelial (NPE) cell.
CC The invention is useful for delivering an enzyme inhibitor into NPE cells
CC of a patient afflicted with a disease associated with NPE cells. The
CC patient is afflicted with cancer (endometriosis, non-small cell lung
CC carcinoma, or breast, colon, ovarian or prostate carcinoma), viral
CC infection or inflammatory disorders. The invention is also useful for
CC treating and inhibiting the development in a patient of a disease
CC associated with NPE cells. The present amino acid sequence represents a
CC human peptide, as described in the methods of the invention
XX
SQ Sequence 16 AA;

Query Match 100.0%; Score 33; DB 5; Length 16;
Best Local Similarity 100.0%; Pred. No. 8.3;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 QDPRLF 6
||||||
Db 3 QDPRLF 8

RESULT 11
ABG68266
ID ABG68266 standard; peptide; 16 AA.
XX
AC ABG68266;
XX
DT 07-OCT-2002 (first entry)
XX
DE Targetting molecule nuclear targetting sequence #1.
XX
KW Targeting molecule; carcinoma; cancer; TM; infection; viral; bacterial.
XX
OS Synthetic.
XX
PN US6391280-B1.

XX
PD 21-MAY-2002.
XX
PF 09-JAN-1998; 98US-00005167.
XX
PR 10-JAN-1997; 97US-00782480.
XX
PA (EPIC-) EPICYTE PHARM INC.
XX
PI Hiatt AC, Hein MB, Fitchen JH;
XX
DR WPI; 2002-488382/52.
XX
PT New targeting agent, useful for in vivo diagnosis of cancer, comprises
PT closed loop peptide linked to imaging agent directed specifically to
PT epithelial surfaces.
XX
PS Disclosure; Col 31-32; 51pp; English.
XX
CC This invention relates to the DNA and protein sequences of a targeting
CC molecule, comprising a polypeptide that forms a closed covalent loop
CC linked to at least one imaging agent linked to a peptide sequence that
CC delivers the imaging agent to a carcinoma cell, nucleus or endoplasmic
CC reticulum. The targeting molecules of the invention are used for in vivo
CC diagnosis (imaging) of diseases, particularly cancer but may also be used
CC for bacterial or viral infections. The targeting molecules of the
CC invention are targeted specifically to epithelial cells, so may be used
CC to improve diagnosis of incipient tumours. The present sequence
CC represents an peptide sequence used to create the targeting molecule of
CC the invention
XX
SQ Sequence 16 AA;

Query Match 100.0%; Score 33; DB 5; Length 16;
Best Local Similarity 100.0%; Pred. No. 8.3;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 QDPRLF 6
||||||
Db 3 QDPRLF 8

RESULT 12
ADH61901
ID ADH61901 standard; peptide; 16 AA.
XX
AC ADH61901;
XX
DT 25-MAR-2004 (first entry)
XX
DE Human targeting molecule-related polyimmunoglobulin receptor protein.
XX
KW targeting molecule; basolateral factor; epithelial surface;
KW imaging agent; dimeric IgA; epithelial barrier; basolateral domain;
KW human; polyimmunoglobulin receptor.
XX
OS Homo sapiens.
XX
PN US2003224443-A1.
XX
PD 04-DEC-2003.
XX
PF 05-FEB-2002; 2002US-00062467.
XX
PR 10-JAN-1997; 97US-00782480.
PR 09-JAN-1998; 98US-00005167.
XX
PA (EPIC-) EPICYTE PHARM INC.
XX
PI Hiatt AC, Hein MB, Fitchen JH;
XX
DR WPI; 2004-033963/03.
XX
PT Novel targeting molecule that binds to a basolateral factor associated
PT with epithelial surface and causes internalization of imaging agent
PT linked with it, useful for delivering imaging agents to epithelial
PT tissue.
XX
PS Example 1; SEQ ID NO 45; 50pp; English.
XX
CC This invention relates to a novel targeting molecule capable of
CC specifically binding to a basolateral factor associated with an
CC epithelial surface and causing the internalisation of an imaging agent
CC linked with it, where the targeting molecule is not full length dimeric
CC IgA. Imaging agents linked to a targeting molecule by a substrate for an
CC intracellular or extracellular enzyme associated with the epithelial
CC barrier are transported through the epithelial barrier and do not remain
CC associated with the basolateral domain. The present sequence is that of a
CC polyimmunoglobulin receptor protein which is related to the invention.
XX
SQ Sequence 16 AA;

Query Match 100.0%; Score 33; DB 8; Length 16;
Best Local Similarity 100.0%; Pred. No. 8.3;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 QDPRLF 6
||||||
Db 3 QDPRLF 8

RESULT 13
ABG60662
ID ABG60662 standard; peptide; 18 AA.
XX
AC ABG60662;
XX
DT 13-AUG-2002 (first entry)
XX
DE Polyimmunoglobulin receptor (pIgR) associated peptide #6.
XX
KW Transcellular transport; transcytotic transport; paracellular transport;
KW respiratory system disorder; lung cancer; tumour; asthma;
KW pathogenic infection; allergy-related disorder;
KW gastrointestinal tract disorder; gastrointestinal hormone disorder;
KW Chron's disease; eating disorder; polyimmunoglobulin receptor; pIgR.
XX
OS Unidentified.
XX
PN WO200228408-A2.
XX
PD 11-APR-2002.
XX
PF 02-OCT-2001; 2001WO-US030832.
XX
PR 02-OCT-2000; 2000US-0237929P.
PR 13-NOV-2000; 2000US-0248478P.
PR 14-NOV-2000; 2000US-0248819P.
PR 09-FEB-2001; 2001US-0267601P.
XX
PA (ARIZ-) ARIZEKE PHARM INC.
XX
PI Houston LL, Sheridan PJ, Hawley S, Glynn JM, Chapin S, Basu A;
XX
DR WPI; 2002-416628/44.
XX
PT Complex useful for transporting active agent through epithelial barrier,
PT has biologically active portion and target element directed to ligand
PT that confers e.g. transcytotic properties to agent specific to ligand.
XX
PS Example 23; Page 281; 379pp; English.
XX
CC The invention described a complex or compound (I) comprising a
CC biologically active portion and a target element (II) directed to a
CC ligand that confers transcellular, transcytotic or paracellular
CC transporting properties to an agent specifically bound to the ligand,

CC where (II) is not an antibody. Alternatively, (I) comprises two or more
CC (II) directed to one or more ligands. (I) is useful for delivering a
CC biologically active agent to an animal, for transporting an active agent
CC through an epithelial or mucosal barrier, and for treating or identifying
CC a disease in an animal e.g. diseases of the respiratory system including
CC lung cancer and tumours, asthma, pathogenic infections, allergy-related
CC disorders, gastrointestinal tract disorders, disorders relating to
CC gastrointestinal hormones, Chron's disease, eating disorders and any
CC disease or disorder involving polyimmunoglobulin receptor (pIgR)
CC displaying cells. This sequence represents a peptide associated with the
CC transport of biologically active agents across cellular barriers
XX
SQ Sequence 18 AA;

Query Match 100.0%; Score 33; DB 5; Length 18;
Best Local Similarity 100.0%; Pred. No. 9.4;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 QDPRLF 6
||||||
Db 7 QDPRLF 12

RESULT 14
ABG60663
ID ABG60663 standard; peptide; 23 AA.
XX
AC ABG60663;
XX
DT 13-AUG-2002 (first entry)
XX
DE Polyimmunoglobulin receptor (pIgR) associated peptide #7.
XX
KW Transcellular transport; transcytotic transport; paracellular transport;
KW respiratory system disorder; lung cancer; tumour; asthma;
KW pathogenic infection; allergy-related disorder;
KW gastrointestinal tract disorder; gastrointestinal hormone disorder;
KW Chron's disease; eating disorder; polyimmunoglobulin receptor; pIgR.
XX
OS Unidentified.
XX
PN WO200228408-A2.
XX
PD 11-APR-2002.
XX
PF 02-OCT-2001; 2001WO-US030832.
XX
PR 02-OCT-2000; 2000US-0237929P.
PR 13-NOV-2000; 2000US-0248478P.
PR 14-NOV-2000; 2000US-0248819P.
PR 09-FEB-2001; 2001US-0267601P.
XX
PA (ARIZ-) ARIZEKE PHARM INC.
XX
PI Houston LL, Sheridan PJ, Hawley S, Glynn JM, Chapin S, Basu A;
XX
DR WPI; 2002-416628/44.
XX
PT Complex useful for transporting active agent through epithelial barrier,
PT has biologically active portion and target element directed to ligand
PT that confers e.g. transcytotic properties to agent specific to ligand.
XX
PS Example 23; Page 281; 379pp; English.
XX
CC The invention described a complex or compound (I) comprising a
CC biologically active portion and a target element (II) directed to a
CC ligand that confers transcellular, transcytotic or paracellular
CC transporting properties to an agent specifically bound to the ligand,
CC where (II) is not an antibody. Alternatively, (I) comprises two or more
CC (II) directed to one or more ligands. (I) is useful for delivering a
CC biologically active agent to an animal, for transporting an active agent
CC through an epithelial or mucosal barrier, and for treating or identifying
CC a disease in an animal e.g. diseases of the respiratory system including
CC lung cancer and tumours, asthma, pathogenic infections, allergy-related
CC disorders, gastrointestinal tract disorders, disorders relating to
CC gastrointestinal hormones, Chron's disease, eating disorders and any
CC disease or disorder involving polyimmunoglobulin receptor (pIgR)
CC displaying cells. This sequence represents a peptide associated with the
CC transport of biologically active agents across cellular barriers
XX
SQ Sequence 23 AA;

Query Match 100.0%; Score 33; DB 5; Length 23;
Best Local Similarity 100.0%; Pred. No. 12;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 QDPRLF 6
||||||
Db 12 QDPRLF 17

RESULT 15
ABG60664
ID ABG60664 standard; peptide; 24 AA.
XX
AC ABG60664;
XX
DT 13-AUG-2002 (first entry)
XX
DE Polyimmunoglobulin receptor (pIgR) associated peptide #8.
XX
KW Transcellular transport; transcytotic transport; paracellular transport;
KW respiratory system disorder; lung cancer; tumour; asthma;
KW pathogenic infection; allergy-related disorder;
KW gastrointestinal tract disorder; gastrointestinal hormone disorder;
KW Chron's disease; eating disorder; polyimmunoglobulin receptor; pIgR.
XX
OS Unidentified.
XX
PN WO200228408-A2.
XX
PD 11-APR-2002.
XX
PF 02-OCT-2001; 2001WO-US030832.
XX
PR 02-OCT-2000; 2000US-0237929P.
PR 13-NOV-2000; 2000US-0248478P.
PR 14-NOV-2000; 2000US-0248819P.
PR 09-FEB-2001; 2001US-0267601P.
XX
PA (ARIZ-) ARIZEKE PHARM INC.
XX
PI Houston LL, Sheridan PJ, Hawley S, Glynn JM, Chapin S, Basu A;
XX
DR WPI; 2002-416628/44.
XX
PT Complex useful for transporting active agent through epithelial barrier,
PT has biologically active portion and target element directed to ligand
PT that confers e.g. transcytotic properties to agent specific to ligand.
XX
PS Example 23; Page 281; 379pp; English.
XX
CC The invention described a complex or compound (I) comprising a
CC biologically active portion and a target element (II) directed to a
CC ligand that confers transcellular, transcytotic or paracellular
CC transporting properties to an agent specifically bound to the ligand,
CC where (II) is not an antibody. Alternatively, (I) comprises two or more
CC (II) directed to one or more ligands. (I) is useful for delivering a
CC biologically active agent to an animal, for transporting an active agent
CC through an epithelial or mucosal barrier, and for treating or identifying
CC a disease in an animal e.g. diseases of the respiratory system including
CC lung cancer and tumours, asthma, pathogenic infections, allergy-related
CC disorders, gastrointestinal tract disorders, disorders relating to
CC gastrointestinal hormones, Chron's disease, eating disorders and any
CC disease or disorder involving polyimmunoglobulin receptor (pIgR)
CC displaying cells. This sequence represents a peptide associated with the

```
CC   transport of biologically active agents across cellular barriers
XX
SQ   Sequence 24 AA;

  Query Match             100.0%;  Score 33;  DB 5;  Length 24;
  Best Local Similarity   100.0%;  Pred. No. 12;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db          7 QDPRLF 12


RESULT 16
AAW43099
ID   AAW43099 standard; peptide; 61 AA.
XX
AC   AAW43099;
XX
DT   04-JUN-1998  (first entry)
XX
DE   Polymeric immunoglobulin receptor (pIgR) stalk sequence 2.
XX
KW   Polymeric immunoglobulin receptor; pIgR; stalk; epithelial cell; ligand;
KW   antibody; target; binding; mammalian.
XX
OS   Mammalia.
XX
PN   WO9746588-A1.
XX
PD   11-DEC-1997.
XX
PF   14-MAY-1997;   97WO-US007944.
XX
PR   04-JUN-1996;   96US-0018958P.
XX
PA   (REGC ) UNIV CALIFORNIA.
XX
PI   Mostov K;
XX
DR   WPI; 1998-042123/04.
XX
PT   Ligand that binds the stalk of a cell's polymeric immunoglobulin receptor
PT   - useful to target to, into or across mammalian epithelial cell
PT   biologically active component, e.g. nucleic acid, protein, lipid,
PT   carbohydrate, etc.
XX
PS   Claim 28; Page 37; 42pp; English.
XX
CC   This peptide sequence represents the stalk of the polymeric
CC   immunoglobulin receptor (pIgR) to which a ligand can bind to. The stalk
CC   is the extracellular component of the pIgR that is bound to the cell
CC   following cleavage of the secretory component of the pIgR. The stalk is
CC   present regardless of whether the secretory component segment is cleaved
CC   or uncleaved from pIgR. A ligand, preferably a humanised antibody or a
CC   recombinant single chain variable region fragment can specifically bind
CC   to the stalk of a pIgR of a cell under physiological conditions, but not
CC   to the secretory component of pIgR. Such a ligand can be introduced into
CC   a cell expressing a pIgR by attaching to the stalk of the pIgR. The
CC   ligand can be used to target to, into or across the apical or basolateral
CC   surface of a mammalian epithelial cell, a biologically active component
CC   selected from a nucleic acid (preferably encoding the wild type cystic
CC   fibrosis transmembrane conductance regulator), protein, radioisotope,
CC   lipid or carbohydrate. The biologically active composition can also be
CC   selected from a group consisting of anti-inflammatories, antisense
CC   oligonucleotides, antibiotics or anti-infectives
XX
SQ   Sequence 61 AA;

  Query Match             100.0%;  Score 33;  DB 2;  Length 61;
  Best Local Similarity   100.0%;  Pred. No. 31;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db         23 QDPRLF 28


RESULT 17
AAW43098
ID   AAW43098 standard; peptide; 61 AA.
XX
AC   AAW43098;
XX
DT   04-JUN-1998  (first entry)
XX
DE   Polymeric immunoglobulin receptor (pIgR) stalk sequence 1.
XX
KW   Polymeric immunoglobulin receptor; pIgR; stalk; epithelial cell; ligand;
KW   antibody; target; binding; mammalian.
XX
OS   Mammalia.
XX
PN   WO9746588-A1.
XX
PD   11-DEC-1997.
XX
PF   14-MAY-1997;   97WO-US007944.
XX
PR   04-JUN-1996;   96US-0018958P.
XX
PA   (REGC ) UNIV CALIFORNIA.
XX
PI   Mostov K;
XX
DR   WPI; 1998-042123/04.
XX
PT   Ligand that binds the stalk of a cell's polymeric immunoglobulin receptor
PT   - useful to target to, into or across mammalian epithelial cell
PT   biologically active component, e.g. nucleic acid, protein, lipid,
PT   carbohydrate, etc.
XX
PS   Claim 28; Page 37; 42pp; English.
XX
CC   This peptide sequence represents the stalk of the polymeric
CC   immunoglobulin receptor (pIgR) to which a ligand can bind to. The stalk
CC   is the extracellular component of the pIgR that is bound to the cell
CC   following cleavage of the secretory component of the pIgR. The stalk is
CC   present regardless of whether the secretory component segment is cleaved
CC   or uncleaved from pIgR. A ligand, preferably a humanised antibody or a
CC   recombinant single chain variable region fragment can specifically bind
CC   to the stalk of a pIgR of a cell under physiological conditions, but not
CC   to the secretory component of pIgR. Such a ligand can be introduced into
CC   a cell expressing a pIgR by attaching to the stalk of the pIgR. The
CC   ligand can be used to target to, into or across the apical or basolateral
CC   surface of a mammalian epithelial cell, a biologically active component
CC   selected from a nucleic acid (preferably encoding the wild type cystic
CC   fibrosis transmembrane conductance regulator), protein, radioisotope,
CC   lipid or carbohydrate. The biologically active composition can also be
CC   selected from a group consisting of anti-inflammatories, antisense
CC   oligonucleotides, antibiotics or anti-infectives
XX
SQ   Sequence 61 AA;

  Query Match             100.0%;  Score 33;  DB 2;  Length 61;
  Best Local Similarity   100.0%;  Pred. No. 31;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db         23 QDPRLF 28


RESULT 18
AAG65712
ID   AAG65712 standard; protein; 90 AA.
```

```
XX
AC   AAG65712;
XX
DT   07-JAN-2002  (first entry)
XX
DE   Human polymeric immunoglobulin receptor (pIgR) fragment.
XX
KW   Polymeric immunoglobulin receptor; pIgR; ligand; therapeutic;
KW   carcinoma diagnosis; veterinary; human.
XX
OS   Homo sapiens.
XX
PN   WO200172846-A2.
XX
PD   04-OCT-2001.
XX
PF   26-MAR-2001; 2001WO-US009699.
XX
PR   27-MAR-2000; 2000US-0192197P.
PR   27-MAR-2000; 2000US-0192198P.
XX
PA   (REGC ) UNIV CALIFORNIA.
XX
PI   Mostov KE,  Chapin SJ,  Richman-Eisenstat J;
XX
DR   WPI; 2001-611619/70.
XX
PT   New ligands binding to a specific region of a polymeric immunoglobulin
PT   receptor, useful for transporting therapeutic or diagnostic compositions
PT   into or across cells expressing pIgR e.g. in drug delivery.
XX
PS   Disclosure; Fig 3; 102pp; English.
XX
CC   The invention provides ligands that bind specifically to a region of an
CC   animal cell polymeric immunoglobulin receptor (pIgR). The pIgR cleaves to
CC   produce a stalk region remaining attached to the cell and a secretory
CC   component existing in the organ of interest in several forms. The ligands
CC   do not bind to the stalk or the most abundant form of the secretory
CC   component present in the organ under physiological conditions. The
CC   ligands are useful for transporting therapeutic or diagnostic
CC   compositions into or across cells expressing pIgR, useful to introduce or
CC   transport ligands such as antibodies and/or to deliver biologically
CC   active components such as proteins, nucleic acids or detectable labels.
CC   They are used to deliver therapeutic compositions to mucosal surfaces
CC   such as the gastro-intestinal tract, respiratory system etc. in humans.
CC   They are also useful to label cells expressing pIgR, e.g. to distinguish
CC   epithelial cells from a mixed cell population in pathology studies or to
CC   aid in carcinoma diagnosis (since pIgR expression is reduced in
CC   carcinomas relative to normal epithelium). They can also be used to
CC   deliver veterinary compositions, especially in mammals such as farm,
CC   domestic or wild mammals or birds e.g. birds reared for human
CC   consumption. The present sequence represents a human pIgR fragment
XX
SQ   Sequence 90 AA;

  Query Match             100.0%;  Score 33;  DB 4;  Length 90;
  Best Local Similarity   100.0%;  Pred. No. 46;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db         52 QDPRLF 57


RESULT 19
ABP55311
ID   ABP55311 standard; protein; 94 AA.
XX
AC   ABP55311;
XX
DT   28-JAN-2003  (first entry)
XX
DE   Human polyimmunoglobulin receptor (pIgR) stalk region.
XX
KW   Transepithelial transport; membrane bound vesicle; virion; liposome;
KW   envelope; capsid; transmembrane domain; gene therapy; immunostimulant;
KW   cytostatic; haemostatic; neuroprotective; antirheumatic; antiarthritic;
KW   antiulcer; antibacterial; anti-HIV; hepatotropic; virucide; exocytosis;
KW   antiinflammatory; apical endocytosis; basolateral endocytosis; ADA-SCID;
KW   transcytosis; monogenic disease; ADA deficiency; cystic fibrosis; ALS;
KW   X-linked severe combined immunodeficiency; Haemophilia B; cancer; HIV;
KW   chronic granulomatous disease; coronary artery disease; viral infection;
KW   amyotrophic lateral sclerosis; rheumatoid arthritis; hepatitis; Herpes;
KW   pathogenic disorder; human immunodeficiency virus; bacterial infection;
KW   tuberculosis; Chlamydiosis; gastrointestinal ulcer; pIgR;
KW   polyimmunoglobulin receptor.
XX
OS   Homo sapiens.
XX
PN   WO200283840-A2.
XX
PD   24-OCT-2002.
XX
PF   03-APR-2002; 2002WO-US010647.
XX
PR   03-APR-2001; 2001US-0281275P.
XX
PA   (ARIZ-) ARIZEKE PHARM INC.
XX
PI   Sheridan PL,  Houston LL;
XX
DR   WPI; 2003-046923/04.
XX
PT   Fusion protein which confers the ability to penetrate epithelial cell
PT   layer and to undergo paracellular transport, has a transepithelial
PT   delivery element and a transmembrane domain from different proteins.
XX
PS   Disclosure; Fig 2C; 160pp; English.
XX
CC   The present invention describes a fusion protein (I) comprising a
CC   transepithelial delivery element (TDE) from a first protein and a
CC   transmembrane domain from a second protein, or comprising TDE and a viral
CC   sequence that confers the ability to be associated with or incorporated
CC   into an envelope or capsid protein of a virus. (I) has immunostimulant,
CC   cytostatic, haemostatic, neuroprotective, antirheumatic, antiarthritic,
CC   antiulcer, antibacterial, anti-HIV, hepatotropic, virucide and
CC   antiinflammatory activities, and can be used in gene therapy. (I) confers
CC   the ability to undergo apical endocytosis, basolateral endocytosis,
CC   apical or basolateral exocytosis, apical to basolateral transcytosis and
CC   basolateral to apical transcytosis. Diseases treatable by gene therapy
CC   include monogenic diseases such as X-linked severe combined
CC   immunodeficiency, ADA deficiency (ADA-SCID), cystic fibrosis, Haemophilia
CC   B, chronic granulomatous disease, cancers such as ovarian cancer, other
CC   diseases such as coronary artery disease, amyotrophic lateral sclerosis
CC   (ALS), rheumatoid arthritis, pathogenic disorders, including human
CC   immunodeficiency virus (HIV), viral infections, hepatitis, non-specific
CC   bacterial infection, tuberculosis, Herpes, Chlamydiosis and
CC   gastrointestinal ulcer. The present sequence represents a
CC   polyimmunoglobulin receptor (pIgR) amino acid sequence which is given in
CC   the exemplification of the present invention
XX
SQ   Sequence 94 AA;

  Query Match             100.0%;  Score 33;  DB 6;  Length 94;
  Best Local Similarity   100.0%;  Pred. No. 48;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db         56 QDPRLF 61


RESULT 20
ABP55310
ID   ABP55310 standard; protein; 94 AA.
XX
```

```
AC   ABP55310;
XX
DT   28-JAN-2003  (first entry)
XX
DE   Polyimmunoglobulin receptor (pIgR) stalk region amino acid sequence.
XX
KW   Transepithelial transport; membrane bound vesicle; virion; liposome;
KW   envelope; capsid; transmembrane domain; gene therapy; immunostimulant;
KW   cytostatic; haemostatic; neuroprotective; antirheumatic; antiarthritic;
KW   antiulcer; antibacterial; anti-HIV; hepatotropic; virucide; exocytosis;
KW   antiinflammatory; apical endocytosis; basolateral endocytosis; ADA-SCID;
KW   transcytosis; monogenic disease; ADA deficiency; cystic fibrosis; ALS;
KW   X-linked severe combined immunodeficiency; Haemophilia B; cancer; HIV;
KW   chronic granulomatous disease; coronary artery disease; viral infection;
KW   amyotrophic lateral sclerosis; rheumatoid arthritis; hepatitis; Herpes;
KW   pathogenic disorder; human immunodeficiency virus; bacterial infection;
KW   tuberculosis; Chlamydiosis; gastrointestinal ulcer; pIgR;
KW   polyimmunoglobulin receptor.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 1. .94
FT                   /note= "X is unspecified"
XX
PN   WO200283840-A2.
XX
PD   24-OCT-2002.
XX
PF   03-APR-2002; 2002WO-US010647.
XX
PR   03-APR-2001; 2001US-0281275P.
XX
PA   (ARIZ-) ARIZEKE PHARM INC.
XX
PI   Sheridan PL,  Houston LL;
XX
DR   WPI; 2003-046923/04.
XX
PT   Fusion protein which confers the ability to penetrate epithelial cell
PT   layer and to undergo paracellular transport, has a transepithelial
PT   delivery element and a transmembrane domain from different proteins.
XX
PS   Disclosure; Fig 2C; 160pp; English.
XX
CC   The present invention describes a fusion protein (I) comprising a
CC   transepithelial delivery element (TDE) from a first protein and a
CC   transmembrane domain from a second protein, or comprising TDE and a viral
CC   sequence that confers the ability to be associated with or incorporated
CC   into an envelope or capsid protein of a virus. (I) has immunostimulant,
CC   cytostatic, haemostatic, neuroprotective, antirheumatic, antiarthritic,
CC   antiulcer, antibacterial, anti-HIV, hepatotropic, virucide and
CC   antiinflammatory activities, and can be used in gene therapy. (I) confers
CC   the ability to undergo apical endocytosis, basolateral endocytosis,
CC   apical or basolateral exocytosis, apical to basolateral transcytosis and
CC   basolateral to apical transcytosis. Diseases treatable by gene therapy
CC   include monogenic diseases such as X-linked severe combined
CC   immunodeficiency, ADA deficiency (ADA-SCID), cystic fibrosis, Haemophilia
CC   B, chronic granulomatous disease, cancers such as ovarian cancer, other
CC   diseases such as coronary artery disease, amyotrophic lateral sclerosis
CC   (ALS), rheumatoid arthritis, pathogenic disorders, including human
CC   immunodeficiency virus (HIV), viral infections, hepatitis, non-specific
CC   bacterial infection, tuberculosis, Herpes, Chlamydiosis and
CC   gastrointestinal ulcer. The present sequence represents a
CC   polyimmunoglobulin receptor (pIgR) amino acid sequence which is given in
CC   the exemplification of the present invention
XX
SQ   Sequence 94 AA;

  Query Match             100.0%;  Score 33;  DB 6;  Length 94;
  Best Local Similarity   100.0%;  Pred. No. 48;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db         56 QDPRLF 61


RESULT 21
ABP55312
ID   ABP55312 standard; protein; 94 AA.
XX
AC   ABP55312;
XX
DT   28-JAN-2003  (first entry)
XX
DE   Simian polyimmunoglobulin receptor (pIgR) stalk region.
XX
KW   Transepithelial transport; membrane bound vesicle; virion; liposome;
KW   envelope; capsid; transmembrane domain; gene therapy; immunostimulant;
KW   cytostatic; haemostatic; neuroprotective; antirheumatic; antiarthritic;
KW   antiulcer; antibacterial; anti-HIV; hepatotropic; virucide; exocytosis;
KW   antiinflammatory; apical endocytosis; basolateral endocytosis; ADA-SCID;
KW   transcytosis; monogenic disease; ADA deficiency; cystic fibrosis; ALS;
KW   X-linked severe combined immunodeficiency; Haemophilia B; cancer; HIV;
KW   chronic granulomatous disease; coronary artery disease; viral infection;
KW   amyotrophic lateral sclerosis; rheumatoid arthritis; hepatitis; Herpes;
KW   pathogenic disorder; human immunodeficiency virus; bacterial infection;
KW   tuberculosis; Chlamydiosis; gastrointestinal ulcer; pIgR;
KW   polyimmunoglobulin receptor.
XX
OS   Macaca mulatta.
XX
PN   WO200283840-A2.
XX
PD   24-OCT-2002.
XX
PF   03-APR-2002; 2002WO-US010647.
XX
PR   03-APR-2001; 2001US-0281275P.
XX
PA   (ARIZ-) ARIZEKE PHARM INC.
XX
PI   Sheridan PL,  Houston LL;
XX
DR   WPI; 2003-046923/04.
XX
PT   Fusion protein which confers the ability to penetrate epithelial cell
PT   layer and to undergo paracellular transport, has a transepithelial
PT   delivery element and a transmembrane domain from different proteins.
XX
PS   Disclosure; Fig 2C; 160pp; English.
XX
CC   The present invention describes a fusion protein (I) comprising a
CC   transepithelial delivery element (TDE) from a first protein and a
CC   transmembrane domain from a second protein, or comprising TDE and a viral
CC   sequence that confers the ability to be associated with or incorporated
CC   into an envelope or capsid protein of a virus. (I) has immunostimulant,
CC   cytostatic, haemostatic, neuroprotective, antirheumatic, antiarthritic,
CC   antiulcer, antibacterial, anti-HIV, hepatotropic, virucide and
CC   antiinflammatory activities, and can be used in gene therapy. (I) confers
CC   the ability to undergo apical endocytosis, basolateral endocytosis,
CC   apical or basolateral exocytosis, apical to basolateral transcytosis and
CC   basolateral to apical transcytosis. Diseases treatable by gene therapy
CC   include monogenic diseases such as X-linked severe combined
CC   immunodeficiency, ADA deficiency (ADA-SCID), cystic fibrosis, Haemophilia
CC   B, chronic granulomatous disease, cancers such as ovarian cancer, other
CC   diseases such as coronary artery disease, amyotrophic lateral sclerosis
CC   (ALS), rheumatoid arthritis, pathogenic disorders, including human
CC   immunodeficiency virus (HIV), viral infections, hepatitis, non-specific
CC   bacterial infection, tuberculosis, Herpes, Chlamydiosis and
CC   gastrointestinal ulcer. The present sequence represents a
CC   polyimmunoglobulin receptor (pIgR) amino acid sequence which is given in
CC   the exemplification of the present invention
XX
SQ   Sequence 94 AA;
```

```
  Query Match           100.0%;  Score 33;  DB 6;  Length 94;
  Best Local Similarity  100.0%;  Pred. No. 48;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db         56 QDPRLF 61


RESULT 22
ADL99570
ID   ADL99570 standard; protein; 94 AA.
XX
AC   ADL99570;
XX
DT   20-MAY-2004  (first entry)
XX
DE   GST-pIgR stalk region fusion protein related protein #5.
XX
KW   antipsoriatic; antiinflammatory; neuroprotective; ophthalmological;
KW   gastrointestinal; osteopathic; nephrotropic; gene therapy;
KW   multimeric molecular complex; transcytotic transport;
KW   paracellular transport; calcitonin; osteoporosis; renal failure; colitis;
KW   gastroenteritis; inflammatory bowel disease; psoriasis;
KW   Alzheimer's disease; optic neuropathy; ophthalmoplegia;
KW   glutathionine-S-transferase; GST; fusion protein;
KW   polyimmunoglobulin receptor; pIgR; stalk region; consensus.
XX
OS   Synthetic.
XX
PN   US2003166160-A1.
XX
PD   04-SEP-2003.
XX
PF   06-SEP-2001; 2001US-00949039.
XX
PR   06-SEP-2001; 2001US-00949039.
XX
PA   (HAWL/) HAWLEY S B.
PA   (CHAP/) CHAPIN S.
PA   (SHER/) SHERIDAN P L.
PA   (HOUS/) HOUSTON L L.
PA   (GLYN/) GLYNN J M.
XX
PI   Hawley SB,  Chapin S,  Sheridan PL,  Houston LL,  Glynn JM;
XX
DR   WPI; 2003-898076/82.
XX
PT   New multimeric molecular complex, useful for preparing a composition for
PT   diagnosing or treating e.g. osteoporosis, renal failure, colitis,
PT   gastroenteritis, inflammatory bowel disease, psoriasis or Alzheimer's
PT   disease.
XX
PS   Example 3; Fig 10; 91pp; English.
XX
CC   The invention describes a multimeric molecular complex comprising at
CC   least 2 compounds, each of which has at least one targeting element
CC   directed to a ligand that confers transcytotic or paracellular
CC   transporting properties to a molecular complex specifically bound to the
CC   ligand. Also described are: a compound comprising at least 2 targeting
CC   elements directed to the ligand; a protein conjugate comprising a
CC   biologically active calcitonin polypeptide having a chemical linkage to
CC   at least one targeting element directed to the ligand; a pharmaceutical
CC   composition comprising the compound; delivering a biologically active
CC   agent to an animal; transporting a biologically active agent through an
CC   epithelial barrier; treating a disease in an animal; and identifying a
CC   disease in an animal. The complex is useful for preparing a composition
CC   for diagnosing or treating diseases, e.g., osteoporosis, renal failure,
CC   colitis, gastroenteritis, inflammatory bowel disease, psoriasis,
CC   Alzheimer's disease, optic neuropathy or ophthalmoplegia. This sequence
CC   represents a polyimmunoglobulin receptor (pIgR) stalk region consensus
CC   sequence that may be used in the creation of a fusion protein with
CC   glutathionine-S-transferase.
XX
SQ   Sequence 94 AA;

  Query Match           100.0%;  Score 33;  DB 7;  Length 94;
  Best Local Similarity  100.0%;  Pred. No. 48;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db         57 QDPRLF 62


RESULT 23
ADL99566
ID   ADL99566 standard; protein; 102 AA.
XX
AC   ADL99566;
XX
DT   20-MAY-2004  (first entry)
XX
DE   GST-pIgR stalk region fusion protein related protein #1.
XX
KW   antipsoriatic; antiinflammatory; neuroprotective; ophthalmological;
KW   gastrointestinal; osteopathic; nephrotropic; gene therapy;
KW   multimeric molecular complex; transcytotic transport;
KW   paracellular transport; calcitonin; osteoporosis; renal failure; colitis;
KW   gastroenteritis; inflammatory bowel disease; psoriasis;
KW   Alzheimer's disease; optic neuropathy; ophthalmoplegia;
KW   glutathionine-S-transferase; GST; fusion protein;
KW   polyimmunoglobulin receptor; pIgR; stalk region; monkey.
XX
OS   Primates.
XX
PN   US2003166160-A1.
XX
PD   04-SEP-2003.
XX
PF   06-SEP-2001; 2001US-00949039.
XX
PR   06-SEP-2001; 2001US-00949039.
XX
PA   (HAWL/) HAWLEY S B.
PA   (CHAP/) CHAPIN S.
PA   (SHER/) SHERIDAN P L.
PA   (HOUS/) HOUSTON L L.
PA   (GLYN/) GLYNN J M.
XX
PI   Hawley SB,  Chapin S,  Sheridan PL,  Houston LL,  Glynn JM;
XX
DR   WPI; 2003-898076/82.
XX
PT   New multimeric molecular complex, useful for preparing a composition for
PT   diagnosing or treating e.g. osteoporosis, renal failure, colitis,
PT   gastroenteritis, inflammatory bowel disease, psoriasis or Alzheimer's
PT   disease.
XX
PS   Example 3; Fig 10; 91pp; English.
XX
CC   The invention describes a multimeric molecular complex comprising at
CC   least 2 compounds, each of which has at least one targeting element
CC   directed to a ligand that confers transcytotic or paracellular
CC   transporting properties to a molecular complex specifically bound to the
CC   ligand. Also described are: a compound comprising at least 2 targeting
CC   elements directed to the ligand; a protein conjugate comprising a
CC   biologically active calcitonin polypeptide having a chemical linkage to
CC   at least one targeting element directed to the ligand; a pharmaceutical
CC   composition comprising the compound; delivering a biologically active
CC   agent to an animal; transporting a biologically active agent through an
CC   epithelial barrier; treating a disease in an animal; and identifying a
CC   disease in an animal. The complex is useful for preparing a composition
CC   for diagnosing or treating diseases, e.g., osteoporosis, renal failure,
CC   colitis, gastroenteritis, inflammatory bowel disease, psoriasis,
```

CC Alzheimer's disease, optic neuropathy or ophthalmoplegia. This sequence
CC represents a polyimmunoglobulin receptor (pIgR) stalk region that can be
CC used in the creation of a fusion protein with glutathionine-S-
CC transferase.
XX
SQ Sequence 102 AA;

Query Match 100.0%; Score 33; DB 7; Length 102;
Best Local Similarity 100.0%; Pred. No. 52;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 QDPRLF 6
||||||
Db 58 QDPRLF 63

RESULT 24
ADL99567
ID ADL99567 standard; protein; 103 AA.
XX
AC ADL99567;
XX
DT 20-MAY-2004 (first entry)
XX
DE GST-pIgR stalk region fusion protein related protein #2.
XX
KW antipsoriatic; antiinflammatory; neuroprotective; ophthalmological;
KW gastrointestinal; osteopathic; nephrotropic; gene therapy;
KW multimeric molecular complex; transcytotic transport;
KW paracellular transport; calcitonin; osteoporosis; renal failure; colitis;
KW gastroenteritis; inflammatory bowel disease; psoriasis;
KW Alzheimer's disease; optic neuropathy; ophthalmoplegia;
KW glutathionine-S-transferase; GST; fusion protein;
KW polyimmunoglobulin receptor; pIgR; stalk region; human.
XX
OS Homo sapiens.
XX
PN US2003166160-A1.
XX
PD 04-SEP-2003.
XX
PF 06-SEP-2001; 2001US-00949039.
XX
PR 06-SEP-2001; 2001US-00949039.
XX
PA (HAWL/) HAWLEY S B.
PA (CHAP/) CHAPIN S.
PA (SHER/) SHERIDAN P L.
PA (HOUS/) HOUSTON L L.
PA (GLYN/) GLYNN J M.
XX
PI Hawley SB, Chapin S, Sheridan PL, Houston LL, Glynn JM;
XX
DR WPI; 2003-898076/82.
XX
PT New multimeric molecular complex, useful for preparing a composition for
PT diagnosing or treating e.g. osteoporosis, renal failure, colitis,
PT gastroenteritis, inflammatory bowel disease, psoriasis or Alzheimer's
PT disease.
XX
PS Example 3; Fig 10; 91pp; English.
XX
CC The invention describes a multimeric molecular complex comprising at
CC least 2 compounds, each of which has at least one targeting element
CC directed to a ligand that confers transcytotic or paracellular
CC transporting properties to a molecular complex specifically bound to the
CC ligand. Also described are: a compound comprising at least 2 targeting
CC elements directed to the ligand; a protein conjugate comprising a
CC biologically active calcitonin polypeptide having a chemical linkage to
CC at least one targeting element directed to the ligand; a pharmaceutical
CC composition comprising the compound; delivering a biologically active
CC agent to an animal; transporting a biologically active agent through an
CC epithelial barrier; treating a disease in an animal; and identifying a
CC disease in an animal. The complex is useful for preparing a composition
CC for diagnosing or treating diseases, e.g., osteoporosis, renal failure,
CC colitis, gastroenteritis, inflammatory bowel disease, psoriasis,
CC Alzheimer's disease, optic neuropathy or ophthalmoplegia. This sequence
CC represents a polyimmunoglobulin receptor (pIgR) stalk region that can be
CC used in the creation of a fusion protein with glutathionine-S-
CC transferase.
XX
SQ Sequence 103 AA;

Query Match 100.0%; Score 33; DB 7; Length 103;
Best Local Similarity 100.0%; Pred. No. 53;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 QDPRLF 6
||||||
Db 58 QDPRLF 63

RESULT 25
ADE08351
ID ADE08351 standard; protein; 162 AA.
XX
AC ADE08351;
XX
DT 29-JAN-2004 (first entry)
XX
DE Novel protein (useful for identifying genetic disorders) #506.
XX
KW novel gene; novel protein; tissue marker; molecular weight marker;
KW chromosome marker; genetic disorder.
XX
OS Unidentified.
XX
PN WO2003054152-A2.
XX
PD 03-JUL-2003.
XX
PF 10-DEC-2002; 2002WO-US039555.
XX
PR 10-DEC-2001; 2001US-0339739P.
PR 11-DEC-2001; 2001US-0339453P.
PR 14-MAR-2002; 2002US-0365091P.
PR 14-MAR-2002; 2002US-0365384P.
PR 12-APR-2002; 2002US-0372381P.
PR 12-APR-2002; 2002US-0372615P.
PR 22-APR-2002; 2002US-00128558.
PR 24-APR-2002; 2002US-0376045P.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Tang YT, Asundi V, Goodrich RW, Ren F, Zhang J, Zhao QA, Wang J;
PI Ghosh M, Xue AJ, Wehrman T, Weng G, Zhou P, Drmanac RT, Wang Z;
PI Ma Y, Wang D, Chen R, Xu C, Boyle BJ;
XX
DR WPI; 2003-569235/53.
DR N-PSDB; ADE07440.
XX
PT New polynucleotides, useful for expressing recombinant proteins for
PT analysis, characterization or therapeutic use, or as markers for tissues
PT in which the corresponding protein is preferentially expressed.
XX
PS Claim 20; SEQ ID NO 1417; 1177pp; English.
XX
CC The invention comprises the amino acid and coding sequences of novel
CC proteins. The DNA and protein sequences of the invention are useful as:
CC markers for tissues in which the corresponding protein is preferentially
CC expressed; as molecular weight markers on gels; as chromosome markers or
CC tags; to identify chromosomes or to map related gene positions; and to
CC compare with endogenous DNA sequences in patients to identify potential
CC genetic disorders. The present amino acid sequence represents a protein
CC of the invention.
XX

```
SQ   Sequence 162 AA;

  Query Match             100.0%;  Score 33;  DB 7;  Length 162;
  Best Local Similarity   100.0%;  Pred. No. 83;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db         88 QDPRLF 93


RESULT 26
AAE29187
ID   AAE29187 standard; protein; 243 AA.
XX
AC   AAE29187;
XX
DT   27-JAN-2003  (first entry)
XX
DE   Cynomolgus monkey pIgR protein.
XX
KW   Polyimmunoglobulin receptor; pIgR; immune response; prophylaxis; cancer;
KW   Crohn's disease; eating disorder; therapy; vaccine; infection; receptor;
KW   asthma; allergy; monkey.
XX
OS   Macaca fascicularis.
XX
PN   WO200274787-A2.
XX
PD   26-SEP-2002.
XX
PF   01-FEB-2002; 2002WO-US003059.
XX
PR   02-FEB-2001; 2001US-0266182P.
XX
PA   (ARIZ-) ARIZEKE PHARM INC.
PA   (HOUS/) HOUSTON L L.
PA   (SHER/) SHERIDAN P L.
XX
PI   Houston LL,  Sheridan PL;
XX
DR   WPI; 2002-759877/82.
DR   N-PSDB; AAD46762.
XX
PT   Identifying small molecules that specifically bind a transcytotic or pIgR
PT   target molecule, useful for treating and/or preventing disorders such as
PT   cancer, asthma, pathogenic infections, allergies and Crohn's disease.
XX
PS   Disclosure; Page 96; 114pp; English.
XX
CC   The invention relates to a method of identifying biologically active
CC   small molecules that specifically bind a transcytotic molecule or a
CC   polyimmunoglobulin receptor (pIgR) target molecule. The method involves
CC   contacting candidate small molecules with at least 1 transcytotic
CC   molecule or at least one pIgR target molecule so that complexes
CC   comprising the transcytotic molecule or pIgR target molecule and a small
CC   molecule can form, and identifying the small molecules present in the
CC   complexes. The methods and compositions of the present invention are used
CC   for identifying, characterising, distinguishing, derivatising, optimising
CC   and using compounds that are or comprise a ligand that binds a pIgR
CC   molecule used for therapeutic and prophylactic applications, particularly
CC   in vaccination and in diseases where a protective immune response is
CC   needed or in diseases such as cancer, asthma, pathogenic infections,
CC   allergies, Crohn's disease and eating disorders. The present sequence is
CC   cynomolgus monkey pIgR protein
XX
SQ   Sequence 243 AA;

  Query Match             100.0%;  Score 33;  DB 5;  Length 243;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        109 QDPRLF 114


RESULT 27
ABP55306
ID   ABP55306 standard; protein; 243 AA.
XX
AC   ABP55306;
XX
DT   28-JAN-2003  (first entry)
XX
DE   Polyimmunoglobulin receptor (pIgR) amino acid sequence.
XX
KW   Transepithelial transport; membrane bound vesicle; virion; liposome;
KW   envelope; capsid; transmembrane domain; gene therapy; immunostimulant;
KW   cytostatic; haemostatic; neuroprotective; antirheumatic; antiarthritic;
KW   antiulcer; antibacterial; anti-HIV; hepatotropic; virucide; exocytosis;
KW   antiinflammatory; apical endocytosis; basolateral endocytosis; ADA-SCID;
KW   transcytosis; monogenic disease; ADA deficiency; cystic fibrosis; ALS;
KW   X-linked severe combined immunodeficiency; Haemophilia B; cancer; HIV;
KW   chronic granulomatous disease; coronary artery disease; viral infection;
KW   amyotrophic lateral sclerosis; rheumatoid arthritis; hepatitis; Herpes;
KW   pathogenic disorder; human immunodeficiency virus; bacterial infection;
KW   tuberculosis; Chlamydiosis; gastrointestinal ulcer; pIgR;
KW   polyimmunoglobulin receptor.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 1. .243
FT                   /note= "X is unspecified"
XX
PN   WO200283840-A2.
XX
PD   24-OCT-2002.
XX
PF   03-APR-2002; 2002WO-US010647.
XX
PR   03-APR-2001; 2001US-0281275P.
XX
PA   (ARIZ-) ARIZEKE PHARM INC.
XX
PI   Sheridan PL,  Houston LL;
XX
DR   WPI; 2003-046923/04.
XX
PT   Fusion protein which confers the ability to penetrate epithelial cell
PT   layer and to undergo paracellular transport, has a transepithelial
PT   delivery element and a transmembrane domain from different proteins.
XX
PS   Disclosure; Fig 2B; 160pp; English.
XX
CC   The present invention describes a fusion protein (I) comprising a
CC   transepithelial delivery element (TDE) from a first protein and a
CC   transmembrane domain from a second protein, or comprising TDE and a viral
CC   sequence that confers the ability to be associated with or incorporated
CC   into an envelope or capsid protein of a virus. (I) has immunostimulant,
CC   cytostatic, haemostatic, neuroprotective, antirheumatic, antiarthritic,
CC   antiulcer, antibacterial, anti-HIV, hepatotropic, virucide and
CC   antiinflammatory activities, and can be used in gene therapy. (I) confers
CC   the ability to undergo apical endocytosis, basolateral endocytosis,
CC   apical or basolateral exocytosis, apical to basolateral transcytosis and
CC   basolateral to apical transcytosis. Diseases treatable by gene therapy
CC   include monogenic diseases such as X-linked severe combined
CC   immunodeficiency, ADA deficiency (ADA-SCID), cystic fibrosis, Haemophilia
CC   B, chronic granulomatous disease, cancers such as ovarian cancer, other
CC   diseases such as coronary artery disease, amyotrophic lateral sclerosis
CC   (ALS), rheumatoid arthritis, pathogenic disorders, including human
CC   immunodeficiency virus (HIV), viral infections, hepatitis, non-specific
CC   bacterial infection, tuberculosis, Herpes, Chlamydiosis and
CC   gastrointestinal ulcer. The present sequence represents a
CC   polyimmunoglobulin receptor (pIgR) amino acid sequence which is given in
```

CC the exemplification of the present invention
XX
SQ Sequence 243 AA;

Query Match 100.0%; Score 33; DB 6; Length 243;
Best Local Similarity 100.0%; Pred. No. 1.2e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 QDPRLF 6
||||||
Db 109 QDPRLF 114

RESULT 28
ABP55315
ID ABP55315 standard; protein; 243 AA.
XX
AC ABP55315;
XX
DT 28-JAN-2003 (first entry)
XX
DE Human polyimmunoglobulin receptor (pIgR) amino acid sequence.
XX
KW Transepithelial transport; membrane bound vesicle; virion; liposome;
KW envelope; capsid; transmembrane domain; gene therapy; immunostimulant;
KW cytostatic; haemostatic; neuroprotective; antirheumatic; antiarthritic;
KW antiulcer; antibacterial; anti-HIV; hepatotropic; virucide; exocytosis;
KW antiinflammatory; apical endocytosis; basolateral endocytosis; ADA-SCID;
KW transcytosis; monogenic disease; ADA deficiency; cystic fibrosis; ALS;
KW X-linked severe combined immunodeficiency; Haemophilia B; cancer; HIV;
KW chronic granulomatous disease; coronary artery disease; viral infection;
KW amyotrophic lateral sclerosis; rheumatoid arthritis; hepatitis; Herpes;
KW pathogenic disorder; human immunodeficiency virus; bacterial infection;
KW tuberculosis; Chlamydiosis; gastrointestinal ulcer; pIgR;
KW polyimmunoglobulin receptor.
XX
OS Homo sapiens.
XX
PN WO200283840-A2.
XX
PD 24-OCT-2002.
XX
PF 03-APR-2002; 2002WO-US010647.
XX
PR 03-APR-2001; 2001US-0281275P.
XX
PA (ARIZ-) ARIZEKE PHARM INC.
XX
PI Sheridan PL, Houston LL;
XX
DR WPI; 2003-046923/04.
XX
PT Fusion protein which confers the ability to penetrate epithelial cell
PT layer and to undergo paracellular transport, has a transepithelial
PT delivery element and a transmembrane domain from different proteins.
XX
PS Disclosure; Fig 2D; 160pp; English.
XX
CC The present invention describes a fusion protein (I) comprising a
CC transepithelial delivery element (TDE) from a first protein and a
CC transmembrane domain from a second protein, or comprising TDE and a viral
CC sequence that confers the ability to be associated with or incorporated
CC into an envelope or capsid protein of a virus. (I) has immunostimulant,
CC cytostatic, haemostatic, neuroprotective, antirheumatic, antiarthritic,
CC antiulcer, antibacterial, anti-HIV, hepatotropic, virucide and
CC antiinflammatory activities, and can be used in gene therapy. (I) confers
CC the ability to undergo apical endocytosis, basolateral endocytosis,
CC apical or basolateral exocytosis, apical to basolateral transcytosis and
CC basolateral to apical transcytosis. Diseases treatable by gene therapy
CC include monogenic diseases such as X-linked severe combined
CC immunodeficiency, ADA deficiency (ADA-SCID), cystic fibrosis, Haemophilia
CC B, chronic granulomatous disease, cancers such as ovarian cancer, other
CC diseases such as coronary artery disease, amyotrophic lateral sclerosis
CC (ALS), rheumatoid arthritis, pathogenic disorders, including human
CC immunodeficiency virus (HIV), viral infections, hepatitis, non-specific
CC bacterial infection, tuberculosis, Herpes, Chlamydiosis and
CC gastrointestinal ulcer. The present sequence represents a
CC polyimmunoglobulin receptor (pIgR) amino acid sequence which is given in
CC the exemplification of the present invention
XX
SQ Sequence 243 AA;

Query Match 100.0%; Score 33; DB 6; Length 243;
Best Local Similarity 100.0%; Pred. No. 1.2e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 QDPRLF 6
||||||
Db 109 QDPRLF 114

RESULT 29
ABP55314
ID ABP55314 standard; protein; 243 AA.
XX
AC ABP55314;
XX
DT 28-JAN-2003 (first entry)
XX
DE Polyimmunoglobulin receptor (pIgR) amino acid sequence.
XX
KW Transepithelial transport; membrane bound vesicle; virion; liposome;
KW envelope; capsid; transmembrane domain; gene therapy; immunostimulant;
KW cytostatic; haemostatic; neuroprotective; antirheumatic; antiarthritic;
KW antiulcer; antibacterial; anti-HIV; hepatotropic; virucide; exocytosis;
KW antiinflammatory; apical endocytosis; basolateral endocytosis; ADA-SCID;
KW transcytosis; monogenic disease; ADA deficiency; cystic fibrosis; ALS;
KW X-linked severe combined immunodeficiency; Haemophilia B; cancer; HIV;
KW chronic granulomatous disease; coronary artery disease; viral infection;
KW amyotrophic lateral sclerosis; rheumatoid arthritis; hepatitis; Herpes;
KW pathogenic disorder; human immunodeficiency virus; bacterial infection;
KW tuberculosis; Chlamydiosis; gastrointestinal ulcer; pIgR;
KW polyimmunoglobulin receptor.
XX
OS Synthetic.
XX
PN WO200283840-A2.
XX
PD 24-OCT-2002.
XX
PF 03-APR-2002; 2002WO-US010647.
XX
PR 03-APR-2001; 2001US-0281275P.
XX
PA (ARIZ-) ARIZEKE PHARM INC.
XX
PI Sheridan PL, Houston LL;
XX
DR WPI; 2003-046923/04.
XX
PT Fusion protein which confers the ability to penetrate epithelial cell
PT layer and to undergo paracellular transport, has a transepithelial
PT delivery element and a transmembrane domain from different proteins.
XX
PS Disclosure; Fig 2D; 160pp; English.
XX
CC The present invention describes a fusion protein (I) comprising a
CC transepithelial delivery element (TDE) from a first protein and a
CC transmembrane domain from a second protein, or comprising TDE and a viral
CC sequence that confers the ability to be associated with or incorporated
CC into an envelope or capsid protein of a virus. (I) has immunostimulant,
CC cytostatic, haemostatic, neuroprotective, antirheumatic, antiarthritic,
CC antiulcer, antibacterial, anti-HIV, hepatotropic, virucide and
CC antiinflammatory activities, and can be used in gene therapy. (I) confers
CC the ability to undergo apical endocytosis, basolateral endocytosis,
CC apical or basolateral exocytosis, apical to basolateral transcytosis and

```
CC   basolateral to apical transcytosis. Diseases treatable by gene therapy
CC   include monogenic diseases such as X-linked severe combined
CC   immunodeficiency, ADA deficiency (ADA-SCID), cystic fibrosis, Haemophilia
CC   B, chronic granulomatous disease, cancers such as ovarian cancer, other
CC   diseases such as coronary artery disease, amyotrophic lateral sclerosis
CC   (ALS), rheumatoid arthritis, pathogenic disorders, including human
CC   immunodeficiency virus (HIV), viral infections, hepatitis, non-specific
CC   bacterial infection, tuberculosis, Herpes, Chlamydiosis and
CC   gastrointestinal ulcer. The present sequence represents a
CC   polyimmunoglobulin receptor (pIgR) amino acid sequence which is given in
CC   the exemplification of the present invention
XX
SQ   Sequence 243 AA;

  Query Match             100.0%;  Score 33;  DB 6;  Length 243;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        109 QDPRLF 114


RESULT 30
ABP55308
ID   ABP55308 standard; protein; 243 AA.
XX
AC   ABP55308;
XX
DT   28-JAN-2003  (first entry)
XX
DE   Simian polyimmunoglobulin receptor (pIgR) amino acid sequence.
XX
KW   Transepithelial transport; membrane bound vesicle; virion; liposome;
KW   envelope; capsid; transmembrane domain; gene therapy; immunostimulant;
KW   cytostatic; haemostatic; neuroprotective; antirheumatic; antiarthritic;
KW   antiulcer; antibacterial; anti-HIV; hepatotropic; virucide; exocytosis;
KW   antiinflammatory; apical endocytosis; basolateral endocytosis; ADA-SCID;
KW   transcytosis; monogenic disease; ADA deficiency; cystic fibrosis; ALS;
KW   X-linked severe combined immunodeficiency; Haemophilia B; cancer; HIV;
KW   chronic granulomatous disease; coronary artery disease; viral infection;
KW   amyotrophic lateral sclerosis; rheumatoid arthritis; hepatitis; Herpes;
KW   pathogenic disorder; human immunodeficiency virus; bacterial infection;
KW   tuberculosis; Chlamydiosis; gastrointestinal ulcer; pIgR;
KW   polyimmunoglobulin receptor.
XX
OS   Macaca mulatta.
XX
PN   WO200283840-A2.
XX
PD   24-OCT-2002.
XX
PF   03-APR-2002; 2002WO-US010647.
XX
PR   03-APR-2001; 2001US-0281275P.
XX
PA   (ARIZ-) ARIZEKE PHARM INC.
XX
PI   Sheridan PL,  Houston LL;
XX
DR   WPI; 2003-046923/04.
XX
PT   Fusion protein which confers the ability to penetrate epithelial cell
PT   layer and to undergo paracellular transport, has a transepithelial
PT   delivery element and a transmembrane domain from different proteins.
XX
PS   Disclosure; Fig 2B; 160pp; English.
XX
CC   The present invention describes a fusion protein (I) comprising a
CC   transepithelial delivery element (TDE) from a first protein and a
CC   transmembrane domain from a second protein, or comprising TDE and a viral
CC   sequence that confers the ability to be associated with or incorporated
CC   into an envelope or capsid protein of a virus. (I) has immunostimulant,
CC   cytostatic, haemostatic, neuroprotective, antirheumatic, antiarthritic,
CC   antiulcer, antibacterial, anti-HIV, hepatotropic, virucide and
CC   antiinflammatory activities, and can be used in gene therapy. (I) confers
CC   the ability to undergo apical endocytosis, basolateral endocytosis,
CC   apical or basolateral exocytosis, apical to basolateral transcytosis and
CC   basolateral to apical transcytosis. Diseases treatable by gene therapy
CC   include monogenic diseases such as X-linked severe combined
CC   immunodeficiency, ADA deficiency (ADA-SCID), cystic fibrosis, Haemophilia
CC   B, chronic granulomatous disease, cancers such as ovarian cancer, other
CC   diseases such as coronary artery disease, amyotrophic lateral sclerosis
CC   (ALS), rheumatoid arthritis, pathogenic disorders, including human
CC   immunodeficiency virus (HIV), viral infections, hepatitis, non-specific
CC   bacterial infection, tuberculosis, Herpes, Chlamydiosis and
CC   gastrointestinal ulcer. The present sequence represents a
CC   polyimmunoglobulin receptor (pIgR) amino acid sequence which is given in
CC   the exemplification of the present invention
XX
SQ   Sequence 243 AA;

  Query Match             100.0%;  Score 33;  DB 6;  Length 243;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        109 QDPRLF 114


RESULT 31
ABP55317
ID   ABP55317 standard; protein; 243 AA.
XX
AC   ABP55317;
XX
DT   28-JAN-2003  (first entry)
XX
DE   Simian polyimmunoglobulin receptor (pIgR) amino acid sequence clone 4.
XX
KW   Transepithelial transport; membrane bound vesicle; virion; liposome;
KW   envelope; capsid; transmembrane domain; gene therapy; immunostimulant;
KW   cytostatic; haemostatic; neuroprotective; antirheumatic; antiarthritic;
KW   antiulcer; antibacterial; anti-HIV; hepatotropic; virucide; exocytosis;
KW   antiinflammatory; apical endocytosis; basolateral endocytosis; ADA-SCID;
KW   transcytosis; monogenic disease; ADA deficiency; cystic fibrosis; ALS;
KW   X-linked severe combined immunodeficiency; Haemophilia B; cancer; HIV;
KW   chronic granulomatous disease; coronary artery disease; viral infection;
KW   amyotrophic lateral sclerosis; rheumatoid arthritis; hepatitis; Herpes;
KW   pathogenic disorder; human immunodeficiency virus; bacterial infection;
KW   tuberculosis; Chlamydiosis; gastrointestinal ulcer; pIgR;
KW   polyimmunoglobulin receptor.
XX
OS   Macaca mulatta.
XX
PN   WO200283840-A2.
XX
PD   24-OCT-2002.
XX
PF   03-APR-2002; 2002WO-US010647.
XX
PR   03-APR-2001; 2001US-0281275P.
XX
PA   (ARIZ-) ARIZEKE PHARM INC.
XX
PI   Sheridan PL,  Houston LL;
XX
DR   WPI; 2003-046923/04.
XX
PT   Fusion protein which confers the ability to penetrate epithelial cell
PT   layer and to undergo paracellular transport, has a transepithelial
PT   delivery element and a transmembrane domain from different proteins.
XX
PS   Disclosure; Fig 2D; 160pp; English.
XX
```

CC The present invention describes a fusion protein (I) comprising a
CC transepithelial delivery element (TDE) from a first protein and a
CC transmembrane domain from a second protein, or comprising TDE and a viral
CC sequence that confers the ability to be associated with or incorporated
CC into an envelope or capsid protein of a virus. (I) has immunostimulant,
CC cytostatic, haemostatic, neuroprotective, antirheumatic, antiarthritic,
CC antiulcer, antibacterial, anti-HIV, hepatotropic, virucide and
CC antiinflammatory activities, and can be used in gene therapy. (I) confers
CC the ability to undergo apical endocytosis, basolateral endocytosis,
CC apical or basolateral exocytosis, apical to basolateral transcytosis and
CC basolateral to apical transcytosis. Diseases treatable by gene therapy
CC include monogenic diseases such as X-linked severe combined
CC immunodeficiency, ADA deficiency (ADA-SCID), cystic fibrosis, Haemophilia
CC B, chronic granulomatous disease, cancers such as ovarian cancer, other
CC diseases such as coronary artery disease, amyotrophic lateral sclerosis
CC (ALS), rheumatoid arthritis, pathogenic disorders, including human
CC immunodeficiency virus (HIV), viral infections, hepatitis, non-specific
CC bacterial infection, tuberculosis, Herpes, Chlamydiosis and
CC gastrointestinal ulcer. The present sequence represents a
CC polyimmunoglobulin receptor (pIgR) amino acid sequence which is given in
CC the exemplification of the present invention
XX
SQ Sequence 243 AA;

Query Match 100.0%; Score 33; DB 6; Length 243;
Best Local Similarity 100.0%; Pred. No. 1.2e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 QDPRLF 6
||||||
Db 109 QDPRLF 114

RESULT 32
ABP55307
ID ABP55307 standard; protein; 243 AA.
XX
AC ABP55307;
XX
DT 28-JAN-2003 (first entry)
XX
DE Human polyimmunoglobulin receptor (pIgR) amino acid sequence.
XX
KW Transepithelial transport; membrane bound vesicle; virion; liposome;
KW envelope; capsid; transmembrane domain; gene therapy; immunostimulant;
KW cytostatic; haemostatic; neuroprotective; antirheumatic; antiarthritic;
KW antiulcer; antibacterial; anti-HIV; hepatotropic; virucide; exocytosis;
KW antiinflammatory; apical endocytosis; basolateral endocytosis; ADA-SCID;
KW transcytosis; monogenic disease; ADA deficiency; cystic fibrosis; ALS;
KW X-linked severe combined immunodeficiency; Haemophilia B; cancer; HIV;
KW chronic granulomatous disease; coronary artery disease; viral infection;
KW amyotrophic lateral sclerosis; rheumatoid arthritis; hepatitis; Herpes;
KW pathogenic disorder; human immunodeficiency virus; bacterial infection;
KW tuberculosis; Chlamydiosis; gastrointestinal ulcer; pIgR;
KW polyimmunoglobulin receptor.
XX
OS Homo sapiens.
XX
PN WO200283840-A2.
XX
PD 24-OCT-2002.
XX
PF 03-APR-2002; 2002WO-US010647.
XX
PR 03-APR-2001; 2001US-0281275P.
XX
PA (ARIZ-) ARIZEKE PHARM INC.
XX
PI Sheridan PL, Houston LL;
XX
DR WPI; 2003-046923/04.
XX
PT Fusion protein which confers the ability to penetrate epithelial cell
PT layer and to undergo paracellular transport, has a transepithelial
PT delivery element and a transmembrane domain from different proteins.
XX
PS Disclosure; Fig 2B; 160pp; English.
XX
CC The present invention describes a fusion protein (I) comprising a
CC transepithelial delivery element (TDE) from a first protein and a
CC transmembrane domain from a second protein, or comprising TDE and a viral
CC sequence that confers the ability to be associated with or incorporated
CC into an envelope or capsid protein of a virus. (I) has immunostimulant,
CC cytostatic, haemostatic, neuroprotective, antirheumatic, antiarthritic,
CC antiulcer, antibacterial, anti-HIV, hepatotropic, virucide and
CC antiinflammatory activities, and can be used in gene therapy. (I) confers
CC the ability to undergo apical endocytosis, basolateral endocytosis,
CC apical or basolateral exocytosis, apical to basolateral transcytosis and
CC basolateral to apical transcytosis. Diseases treatable by gene therapy
CC include monogenic diseases such as X-linked severe combined
CC immunodeficiency, ADA deficiency (ADA-SCID), cystic fibrosis, Haemophilia
CC B, chronic granulomatous disease, cancers such as ovarian cancer, other
CC diseases such as coronary artery disease, amyotrophic lateral sclerosis
CC (ALS), rheumatoid arthritis, pathogenic disorders, including human
CC immunodeficiency virus (HIV), viral infections, hepatitis, non-specific
CC bacterial infection, tuberculosis, Herpes, Chlamydiosis and
CC gastrointestinal ulcer. The present sequence represents a
CC polyimmunoglobulin receptor (pIgR) amino acid sequence which is given in
CC the exemplification of the present invention
XX
SQ Sequence 243 AA;

Query Match 100.0%; Score 33; DB 6; Length 243;
Best Local Similarity 100.0%; Pred. No. 1.2e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 QDPRLF 6
||||||
Db 109 QDPRLF 114

RESULT 33
ABP55316
ID ABP55316 standard; protein; 243 AA.
XX
AC ABP55316;
XX
DT 28-JAN-2003 (first entry)
XX
DE Simian polyimmunoglobulin receptor (pIgR) amino acid sequence clone 2.
XX
KW Transepithelial transport; membrane bound vesicle; virion; liposome;
KW envelope; capsid; transmembrane domain; gene therapy; immunostimulant;
KW cytostatic; haemostatic; neuroprotective; antirheumatic; antiarthritic;
KW antiulcer; antibacterial; anti-HIV; hepatotropic; virucide; exocytosis;
KW antiinflammatory; apical endocytosis; basolateral endocytosis; ADA-SCID;
KW transcytosis; monogenic disease; ADA deficiency; cystic fibrosis; ALS;
KW X-linked severe combined immunodeficiency; Haemophilia B; cancer; HIV;
KW chronic granulomatous disease; coronary artery disease; viral infection;
KW amyotrophic lateral sclerosis; rheumatoid arthritis; hepatitis; Herpes;
KW pathogenic disorder; human immunodeficiency virus; bacterial infection;
KW tuberculosis; Chlamydiosis; gastrointestinal ulcer; pIgR;
KW polyimmunoglobulin receptor.
XX
OS Macaca mulatta.
XX
PN WO200283840-A2.
XX
PD 24-OCT-2002.
XX
PF 03-APR-2002; 2002WO-US010647.
XX
PR 03-APR-2001; 2001US-0281275P.
XX
PA (ARIZ-) ARIZEKE PHARM INC.
XX

PI Sheridan PL, Houston LL;
XX
DR WPI; 2003-046923/04.
XX
PT Fusion protein which confers the ability to penetrate epithelial cell
PT layer and to undergo paracellular transport, has a transepithelial
PT delivery element and a transmembrane domain from different proteins.
XX
PS Disclosure; Fig 2D; 160pp; English.
XX
CC The present invention describes a fusion protein (I) comprising a
CC transepithelial delivery element (TDE) from a first protein and a
CC transmembrane domain from a second protein, or comprising TDE and a viral
CC sequence that confers the ability to be associated with or incorporated
CC into an envelope or capsid protein of a virus. (I) has immunostimulant,
CC cytostatic, haemostatic, neuroprotective, antirheumatic, antiarthritic,
CC antiulcer, antibacterial, anti-HIV, hepatotropic, virucide and
CC antiinflammatory activities, and can be used in gene therapy. (I) confers
CC the ability to undergo apical endocytosis, basolateral endocytosis,
CC apical or basolateral exocytosis, apical to basolateral transcytosis and
CC basolateral to apical transcytosis. Diseases treatable by gene therapy
CC include monogenic diseases such as X-linked severe combined
CC immunodeficiency, ADA deficiency (ADA-SCID), cystic fibrosis, Haemophilia
CC B, chronic granulomatous disease, cancers such as ovarian cancer, other
CC diseases such as coronary artery disease, amyotrophic lateral sclerosis
CC (ALS), rheumatoid arthritis, pathogenic disorders, including human
CC immunodeficiency virus (HIV), viral infections, hepatitis, non-specific
CC bacterial infection, tuberculosis, Herpes, Chlamydiosis and
CC gastrointestinal ulcer. The present sequence represents a
CC polyimmunoglobulin receptor (pIgR) amino acid sequence which is given in
CC the exemplification of the present invention
XX
SQ Sequence 243 AA;

Query Match 100.0%; Score 33; DB 6; Length 243;
Best Local Similarity 100.0%; Pred. No. 1.2e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 QDPRLF 6
||||||
Db 109 QDPRLF 114

RESULT 34
AAY73981
ID AAY73981 standard; protein; 272 AA.
XX
AC AAY73981;
XX
DT 14-MAR-2000 (first entry)
XX
DE Human prostate tumor EST fragment derived protein #168.
XX
KW Pancreas; tumor; EST; expressed sequence tag; human; cytostatic;
KW treatment.
XX
OS Homo sapiens.
XX
PN DE19820190-A1.
XX
PD 04-NOV-1999.
XX
PF 28-APR-1998; 98DE-01020190.
XX
PR 28-APR-1998; 98DE-01020190.
XX
PA (META-) METAGEN GES GENOMFORSCHUNG MBH.
XX
PI Rosenthal A, Specht T, Hinzmann B, Schmitt A, Pilarsky C, Dahl E;
XX
DR WPI; 1999-621386/54.
DR N-PSDB; AAZ52913.
XX
PT New human nucleic acid sequences from pancreatic tumors, and related
PT proteins.
XX
PS Claim 23; Page 379; 502pp; German.
XX
CC This invention describes novel polypeptides and their encoding nucleic
CC acids derived from human pancreatic tumor tissue which have cytostatic
CC activity. The sequences are also useful in producing pharmaceutical
CC compositions for treatment of pancreatic tumors. AAY73814-Y74252
CC represent protein fragments encoded by the human pancreatic tumor cDNA
CC library derived expressed sequence tag (EST) sequences represented in
CC AAZ52858-Z53014
XX
SQ Sequence 272 AA;

Query Match 100.0%; Score 33; DB 2; Length 272;
Best Local Similarity 100.0%; Pred. No. 1.4e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 QDPRLF 6
||||||
Db 108 QDPRLF 113

RESULT 35
ADE97373
ID ADE97373 standard; protein; 602 AA.
XX
AC ADE97373;
XX
DT 12-FEB-2004 (first entry)
XX
DE Human secretory component protein derived from plasmid pSHuSC.
XX
KW immunoadhesin; immunoglobulin heavy chain; J chain; joining; toxin;
KW virucide; antibacterial; anthrax; rhinovirus infection; common cold;
KW intercellular adhesion molecule; ICAM-1; human; plasmid pSHuSC;
KW secretory component.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO2003064992-A2.
XX
PD 07-AUG-2003.
XX
PF 25-OCT-2002; 2002WO-US034197.
XX
PR 26-OCT-2001; 2001US-00047542.
XX
PA (PLAN-) PLANET BIOTECHNOLOGY INC.
PA (LARR/) LARRICK J W.
PA (WYCO/) WYCOFF K L.
XX
PI Larrick JW, Wycoff KL;
XX
DR WPI; 2003-636816/60.
DR N-PSDB; ADE97343.
XX
PT New immunoadhesin, useful for treating anthrax and rhinovirus, comprises
PT chimeric toxin receptor protein linked to immunoglobulin heavy chain, and
PT J chain and secretory component associated with the chimeric toxin
PT receptor protein.
XX
PS Disclosure; SEQ ID NO 51; 288pp; English.
XX
CC The invention relates to a novel immunoadhesin comprising a chimeric
CC toxin receptor protein consisting of a toxin receptor protein linked to
CC at least a portion of an immunoglobulin heavy chain with a J (joining)
CC chain and secretory component (SC) associated with the chimeric toxin
CC receptor protein. The immunoadhesin comprises a chimeric bacterial or
CC viral toxin receptor protein and the immunoadhesin has plant-specific
CC glycosylation. The immunoadhesin of the invention demonstrates virucide

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CC   and antibacterial activities and may be useful for reducing the binding
CC   of a viral or bacterial antigen to a host cell and thus for treating or
CC   preventing anthrax, as well as human rhinovirus infection which results
CC   in the common cold. The current sequence is that of the human
CC   immunoadhesion-related protein of the invention.
XX
SQ   Sequence 602 AA;

  Query Match             100.0%;  Score 33;  DB 7;  Length 602;
  Best Local Similarity   100.0%;  Pred. No. 3e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        595 QDPRLF 600


RESULT 36
AAW95601
ID   AAW95601 standard; protein; 607 AA.
XX
AC   AAW95601;
XX
DT   08-JUN-1999  (first entry)
XX
DE   Human secretory Immunoglobulin A component.
XX
KW   Immunoglobulin A; secretory; component; IgA; human; treatment;
KW   prevention; infection; HIV; AIDS; cold; flu; virus;
KW   human immunodeficiency virus; respiratory syncytial virus.
XX
OS   Homo sapiens.
XX
PN   WO9857993-A1.
XX
PD   23-DEC-1998.
XX
PF   10-JUN-1998;   98WO-US011975.
XX
PR   19-JUN-1997;   97US-0050969P.
XX
PA   (REGC ) UNIV CALIFORNIA.
XX
PI   Morrison SL,  Chintalacharuvu KR;
XX
DR   WPI; 1999-080950/07.
DR   N-PSDB; AAX07407.
XX
PT   Producing secretory immunoglobulin in single cells - useful to produce
PT   commercial quantities of secretory immunoglobulin to prevent or treat
PT   infections.
XX
PS   Disclosure; Page 22-24; 39pp; English.
XX
CC   The sequence is that of the secretory component of human secretory
CC   immunoglobulin A (sIgA). It can be used as part of a method for the
CC   production of sIg molecules. This method is useful for producing
CC   commercial quantities of sIg (especially sIgA) to treat or prevent
CC   infections. In particular, sIgA produced by the method can be used to
CC   prevent or treat infections in mammals, birds or fish; especially
CC   systemic infections or infections at a mucosal surface. It is especially
CC   useful to prevent or treat infection with human immunodeficiency virus
CC   (HIV), respiratory syncytial virus, flu virus or cold virus. The method
CC   allows production of commercial quantities of sIg molecules for
CC   therapeutic use, not previously possible; production using non-plant
CC   cells and a single cell type is more efficient than a previous multi-step
CC   process of fusing recombinant plant cells, and avoids alterations of the
CC   sIg by plant cells. SIgA molecules are more stable and resistant to
CC   proteolysis than previously used IgA molecules, and can be administered
CC   to prevent as well as to treat infections, unlike e.g. IgG and IgM
CC   molecules
XX
SQ   Sequence 607 AA;

  Query Match             100.0%;  Score 33;  DB 2;  Length 607;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        600 QDPRLF 605


RESULT 37
AAY34099
ID   AAY34099 standard; protein; 607 AA.
XX
AC   AAY34099;
XX
DT   20-DEC-1999  (first entry)
XX
DE   Partial amino acid sequence of plasmid pSHuSC.
XX
KW   Multimeric protein; immunoglobulin; receptor-ligand complex;
KW   hetero-dimeric receptor; trimeric G protein; transgenic.
XX
OS   Synthetic.
XX
PN   WO9949024-A2.
XX
PD   30-SEP-1999.
XX
PF   24-MAR-1999;   99WO-US006506.
XX
PR   25-MAR-1998;   98US-0079249P.
XX
PA   (PLAN-) PLANET BIOTECHNOLOGY INC.
XX
PI   Wycoff KL,  Jaiswal SK;
XX
DR   WPI; 1999-580446/49.
DR   N-PSDB; AAZ22290.
XX
PT   Producing heterologous multimeric proteins in plants, transformed with
PT   several plasmids expressing polypeptide components, particularly for
PT   immunoglobulins.
XX
PS   Example 1; Fig 8; 42pp; English.
XX
CC   The invention relates to a method for producing heterologous, multimeric
CC   proteins in plant cells. The method comprises: (a) transforming the cells
CC   with several naked plasmids each encoding some, but not all, of the
CC   polypeptide components of the multimeric proteins, and together providing
CC   all the polypeptide components; and (b) culturing the cells. The method
CC   is used to produce biologically active multimeric proteins particularly
CC   immunoglobulins, receptor-ligand complexes, homo- or hetero-dimeric
CC   receptors, or trimeric G proteins. This method provides properly
CC   associated and assembled multimeric proteins in a fast and efficient
CC   process, without the need to cross plants expressing single component of
CC   the protein. Transgenic plants containing adjacent and stably integrated
CC   plasmids, and their progeny can also express the multimeric proteins. The
CC   present sequence represents the partial amino acid sequence of the
CC   plasmid pSHuSC
XX
SQ   Sequence 607 AA;

  Query Match             100.0%;  Score 33;  DB 2;  Length 607;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        600 QDPRLF 605


RESULT 38
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```
AAM47867
ID   AAM47867 standard; protein; 607 AA.
XX
AC   AAM47867;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Human secretory component.
XX
KW   Human; immunoadhesin; intercellular adhesion molecule; ICAM-1;
KW   human rhinovirus; immunoglobulin heavy chain; J chain; HRV; common cold;
KW   transgenic plant.
XX
OS   Homo sapiens.
XX
PN   WO200183529-A2.
XX
PD   08-NOV-2001.
XX
PF   28-APR-2001; 2001WO-US013932.
XX
PR   28-APR-2000; 2000US-0200298P.
XX
PA   (PLAN-) PLANET BIOTECHNOLOGY INC.
XX
PI   Larrick JW,  Wycoff KL;
XX
DR   WPI; 2002-041481/05.
DR   N-PSDB; ABA05260.
XX
PT   Immunoadhesin for treating human rhinovirus infection comprises chimeric
PT   intercellular adhesion molecule-1, and optionally a J chain and secretory
PT   component in association.
XX
PS   Example; Fig 8; 138pp; English.
XX
CC   The invention relates to an immunoadhesin comprising: (a) a chimeric
CC   intercellular adhesion molecule (ICAM)-1 comprising a rhinovirus receptor
CC   protein linked to at least a portion of an immunoglobulin heavy chain;
CC   and (b) optionally a J chain and secretory component associated with the
CC   chimeric ICAM-1 molecule. The immunoadhesin has plant-specific
CC   glycosylation and virucide activity. The immunoadhesin is useful for
CC   reducing infection by human rhinovirus (HRV) and hence the initiation or
CC   spread of the common cold by HRV. The immunoadhesin binds to HRV and
CC   reduces its infectivity, competing with cell surface ICAM-1 for binding
CC   sites, interfering with virus entry or uncoating and directing premature
CC   release of viral RNA and formation of empty capsids. Expression of the
CC   immunoadhesin in plants would be tetrameric, rather than dimeric.
CC   Immunoadhesin having multiple binding sites have a higher effective
CC   affinity for the virus, thereby increasing the effectiveness of the
CC   immunoadhesin. Association of secretory component and immunoglobulin J
CC   chain increases the stability of the immunoadhesin in the mucosal
CC   environment. Production is significantly less expensive in plants than in
CC   animal cell culture and production in plants is safer for human use,
CC   since plants are not known to harbor any animal viruses. The present
CC   sequence is that of the human secretory component expressed from the
CC   plasmid pSHuSC, of the invention
XX
SQ   Sequence 607 AA;

  Query Match             100.0%;  Score 33;  DB 5;  Length 607;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        600 QDPRLF 605


RESULT 39
ABM84869
ID   ABM84869 standard; protein; 686 AA.
XX
AC   ABM84869;
XX
DT   18-NOV-2004  (first entry)
XX
DE   Human diagnostic and therapeutic pprotein SEQ ID NO:5118.
XX
KW   gene therapy; human diagnostic and therapeutic polynucleotide; dithp.
XX
OS   Homo sapiens.
XX
PN   WO2004023973-A2.
XX
PD   25-MAR-2004.
XX
PF   12-SEP-2003; 2003WO-US028227.
XX
PR   12-SEP-2002; 2002US-0410259P.
PR   12-SEP-2002; 2002US-0410260P.
XX
PA   (INCY-) INCYTE CORP.
XX
PI   Schmidt JP,  Wright RJ,  Bruns CM,  Marjanovic MM,  Shen F;
PI   Harthshorne TA,  Suchorolski MT,  Altus CM,  Pitts SJ,  Elder LV;
PI   Mooney EM,  Delegeane AM,  Panesar IS,  Banville SC,  Reddy TP;
PI   Stevens KA,  Blanchard JL,  Panzer SR,  Wang X,  Au AP,  Gerstin EH;
PI   Peralta CH,  Anderson SB,  Rioux P,  Shen EJ,  Wu MC,  Stuve LL;
PI   Lagace RE,  Spiro PA,  Stewart EA,  Wingrove J,  Vitt UA,  Kirton ES;
PI   Xu Y,  Kwong M,  Policky JL,  Hurwitz BL,  Ma Y,  Jackson JL,  Gietzen D;
PI   Patury S,  Shi X,  Suarez CJ;
XX
DR   WPI; 2004-329368/30.
DR   N-PSDB; ACN43521.
XX
PT   New diagnostic and therapeutic polynucleotides and polypeptides, useful
PT   in diagnosing a condition, disease or disorder associated with human
PT   molecules, e.g. autoimmune or inflammatory disorders, in gene therapy or
PT   in gene mapping.
XX
PS   Claim 27; Page; 190pp; English.
XX
CC   The invention relates to novel diagnostic and therapeutic polynucleotides
CC   selected from one of the 2722 sequences defined in the specification. A
CC   polynucleotide of the invention may have a use in gene therapy. The human
CC   diagnostic and therapeutic polynucleotides (dithp) or polypeptides may be
CC   used to diagnose a particular condition, disease or disorder associated
CC   with human molecules, e.g. cell proliferative disorders,
CC   autoimmune/inflammatory disorder, developmental disorder, endocrine
CC   disorder, neurological disorders, gastrointestinal disorders, or
CC   infections caused by virus, bacteria, fungi or parasite. The dithp
CC   molecules may also be used in genetic mapping, in identifying individuals
CC   from minute biological samples, in detecting single nucleotide
CC   polymorphisms, as molecular weight markers, and for somatic or germline
CC   gene therapy. The present sequence represents a dithp protein of the
CC   invention. Note: The sequence data for this patent is not represented in
CC   the printed specification, but was obtained in electronic format directly
CC   from WIPO at www.wipo.int/pct/en/sequences/listing.htm
XX
SQ   Sequence 686 AA;

  Query Match             100.0%;  Score 33;  DB 8;  Length 686;
  Best Local Similarity   100.0%;  Pred. No. 3.5e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        522 QDPRLF 527


RESULT 40
ABM84871
ID   ABM84871 standard; protein; 686 AA.
XX
AC   ABM84871;
```

XX
DT 18-NOV-2004 (first entry)
XX
DE Human diagnostic and therapeutic pprotein SEQ ID NO:5120.
XX
KW gene therapy; human diagnostic and therapeutic polynucleotide; dithp.
XX
OS Homo sapiens.
XX
PN WO2004023973-A2.
XX
PD 25-MAR-2004.
XX
PF 12-SEP-2003; 2003WO-US028227.
XX
PR 12-SEP-2002; 2002US-0410259P.
PR 12-SEP-2002; 2002US-0410260P.
XX
PA (INCY-) INCYTE CORP.
XX
PI Schmidt JP, Wright RJ, Bruns CM, Marjanovic MM, Shen F;
PI Harthshorne TA, Suchorolski MT, Altus CM, Pitts SJ, Elder LV;
PI Mooney EM, Delegeane AM, Panesar IS, Banville SC, Reddy TP;
PI Stevens KA, Blanchard JL, Panzer SR, Wang X, Au AP, Gerstin EH;
PI Peralta CH, Anderson SB, Rioux P, Shen EJ, Wu MC, Stuve LL;
PI Lagace RE, Spiro PA, Stewart EA, Wingrove J, Vitt UA, Kirton ES;
PI Xu Y, Kwong M, Policky JL, Hurwitz BL, Ma Y, Jackson JL, Gietzen D;
PI Patury S, Shi X, Suarez CJ;
XX
DR WPI; 2004-329368/30.
DR N-PSDB; ACN43523.
XX
PT New diagnostic and therapeutic polynucleotides and polypeptides, useful
PT in diagnosing a condition, disease or disorder associated with human
PT molecules, e.g. autoimmune or inflammatory disorders, in gene therapy or
PT in gene mapping.
XX
PS Claim 27; Page; 190pp; English.
XX
CC The invention relates to novel diagnostic and therapeutic polynucleotides
CC selected from one of the 2722 sequences defined in the specification. A
CC polynucleotide of the invention may have a use in gene therapy. The human
CC diagnostic and therapeutic polynucleotides (dithp) or polypeptides may be
CC used to diagnose a particular condition, disease or disorder associated
CC with human molecules, e.g. cell proliferative disorders,
CC autoimmune/inflammatory disorder, developmental disorder, endocrine
CC disorder, neurological disorders, gastrointestinal disorders, or
CC infections caused by virus, bacteria, fungi or parasite. The dithp
CC molecules may also be used in genetic mapping, in identifying individuals
CC from minute biological samples, in detecting single nucleotide
CC polymorphisms, as molecular weight markers, and for somatic or germline
CC gene therapy. The present sequence represents a dithp protein of the
CC invention. Note: The sequence data for this patent is not represented in
CC the printed specification, but was obtained in electronic format directly
CC from WIPO at www.wipo.int/pct/en/sequences/listing.htm
XX
SQ Sequence 686 AA;

Query Match 100.0%; Score 33; DB 8; Length 686;
Best Local Similarity 100.0%; Pred. No. 3.5e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 QDPRLF 6
              ||||||
Db        522 QDPRLF 527
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GenCore version 5.1.6

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Post-processing: Minimum Match 0%
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Listing first 150 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	33	100.0	6	9	US-09-818-247-10	Sequence 10, Appl
2	33	100.0	6	10	US-09-949-039-34	Sequence 34, Appl
3	33	100.0	6	16	US-10-470-987-26	Sequence 26, Appl
4	33	100.0	6	17	US-10-754-485-44	Sequence 44, Appl
5	33	100.0	6	20	US-11-038-956-10	Sequence 10, Appl
6	33	100.0	9	9	US-09-818-247-12	Sequence 12, Appl
7	33	100.0	9	20	US-11-038-956-12	Sequence 12, Appl
8	33	100.0	10	10	US-09-969-748C-74	Sequence 74, Appl
9	33	100.0	16	15	US-10-062-467A-45	Sequence 45, Appl
10	33	100.0	18	10	US-09-969-748C-71	Sequence 71, Appl
11	33	100.0	23	10	US-09-969-748C-72	Sequence 72, Appl
12	33	100.0	24	10	US-09-969-748C-73	Sequence 73, Appl
13	33	100.0	41	10	US-09-949-039-110	Sequence 110, App
14	33	100.0	41	10	US-09-949-039-111	Sequence 111, App
15	33	100.0	90	9	US-09-818-247-17	Sequence 17, Appl
16	33	100.0	90	20	US-11-038-956-17	Sequence 17, Appl
17	33	100.0	94	10	US-09-969-748C-107	Sequence 107, App
18	33	100.0	94	16	US-10-470-987-36	Sequence 36, Appl
19	33	100.0	94	16	US-10-470-987-37	Sequence 37, Appl
20	33	100.0	94	16	US-10-470-987-44	Sequence 44, Appl
21	33	100.0	95	9	US-09-818-247-20	Sequence 20, Appl
22	33	100.0	95	20	US-11-038-956-20	Sequence 20, Appl
23	33	100.0	102	10	US-09-969-748C-103	Sequence 103, App
24	33	100.0	102	10	US-09-969-748C-104	Sequence 104, App
25	33	100.0	102	10	US-09-949-039-100	Sequence 100, App
26	33	100.0	103	10	US-09-949-039-101	Sequence 101, App
27	33	100.0	243	10	US-09-969-748C-108	Sequence 108, App
28	33	100.0	243	16	US-10-470-987-2	Sequence 2, Appli
29	33	100.0	243	16	US-10-470-987-33	Sequence 33, Appl
30	33	100.0	243	16	US-10-470-987-34	Sequence 34, Appl
31	33	100.0	243	16	US-10-470-987-39	Sequence 39, Appl
32	33	100.0	243	16	US-10-470-987-40	Sequence 40, Appl
33	33	100.0	243	16	US-10-470-987-41	Sequence 41, Appl
34	33	100.0	243	16	US-10-470-987-43	Sequence 43, Appl
35	33	100.0	243	16	US-10-470-987-45	Sequence 45, Appl
36	33	100.0	244	10	US-09-969-748C-109	Sequence 109, App
37	33	100.0	602	13	US-10-047-542-51	Sequence 51, Appl
38	33	100.0	608	9	US-09-950-294-4	Sequence 4, Appli
39	33	100.0	746	9	US-09-982-107-4	Sequence 4, Appli
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42	33	100.0	764	9	US-09-981-353-59	Sequence 59, Appl
43	33	100.0	764	9	US-09-989-919-124	Sequence 124, App
44	33	100.0	764	10	US-09-949-039-65	Sequence 65, Appl
45	33	100.0	764	16	US-10-470-987-28	Sequence 28, Appl
46	33	100.0	764	17	US-10-482-029-82	Sequence 82, Appl
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48	33	100.0	764	20	US-11-038-956-1	Sequence 1, Appli
49	31	93.9	171	16	US-10-767-701-34260	Sequence 34260, A
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51	30	90.9	122	15	US-10-344-381A-14	Sequence 14, Appl
52	30	90.9	126	14	US-10-338-083-12	Sequence 12, Appl
53	30	90.9	126	16	US-10-611-399-12	Sequence 12, Appl
54	30	90.9	126	17	US-10-794-751-12	Sequence 12, Appl
55	30	90.9	151	9	US-09-934-465-11	Sequence 11, Appl
56	30	90.9	151	16	US-10-861-685-11	Sequence 11, Appl
57	30	90.9	151	17	US-10-652-979-11	Sequence 11, Appl
58	30	90.9	191	17	US-10-978-203-24	Sequence 24, Appl
59	30	90.9	191	17	US-10-978-131-24	Sequence 24, Appl
60	30	90.9	193	9	US-09-813-329-15	Sequence 15, Appl
61	30	90.9	193	14	US-10-218-547-14	Sequence 14, Appl
62	30	90.9	193	14	US-10-310-793-20	Sequence 20, Appl
63	30	90.9	193	15	US-10-331-496A-61	Sequence 61, Appl
64	30	90.9	193	15	US-10-295-027-310	Sequence 310, App
65	30	90.9	193	15	US-10-202-062-14	Sequence 14, Appl
66	30	90.9	193	16	US-10-408-765A-112	Sequence 112, App
67	30	90.9	193	16	US-10-473-127-256	Sequence 256, App
68	30	90.9	193	16	US-10-473-127-257	Sequence 257, App
69	30	90.9	193	16	US-10-473-127-258	Sequence 258, App
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71	30	90.9	193	16	US-10-473-127-262	Sequence 262, App
72	30	90.9	193	16	US-10-473-127-263	Sequence 263, App
73	30	90.9	193	16	US-10-473-127-264	Sequence 264, App
74	30	90.9	193	16	US-10-723-860-1474	Sequence 1474, Ap
75	30	90.9	193	17	US-10-496-892-2	Sequence 2, Appli
76	30	90.9	193	18	US-10-981-381-2	Sequence 2, Appli
77	30	90.9	193	20	US-11-028-780-14	Sequence 14, Appl
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79	30	90.9	216	16	US-10-473-127-260	Sequence 260, App
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84	30	90.9	639	14	US-10-116-519-5	Sequence 5, Appli

85	30	90.9	639	15	US-10-390-585-6	Sequence 6, Appli
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88	30	90.9	861	9	US-09-838-539-12	Sequence 12, Appl
89	30	90.9	1024	18	US-10-737-318-41	Sequence 41, Appl
90	29	87.9	68	9	US-09-864-761-47149	Sequence 47149, A
91	29	87.9	87	16	US-10-425-115-326077	Sequence 326077,
92	29	87.9	119	16	US-10-767-701-61624	Sequence 61624, A
93	29	87.9	169	15	US-10-424-599-153999	Sequence 153999,
94	29	87.9	174	16	US-10-767-701-48755	Sequence 48755, A
95	29	87.9	212	14	US-10-127-032-166	Sequence 166, App
96	29	87.9	248	15	US-10-289-762-740	Sequence 740, App
97	29	87.9	248	15	US-10-282-122A-54696	Sequence 54696, A
98	29	87.9	323	15	US-10-425-114-54322	Sequence 54322, A
99	29	87.9	326	15	US-10-425-114-63180	Sequence 63180, A
100	29	87.9	366	15	US-10-424-599-209667	Sequence 209667,
101	29	87.9	367	15	US-10-369-493-13035	Sequence 13035, A
102	29	87.9	490	16	US-10-425-115-305707	Sequence 305707,
103	29	87.9	549	16	US-10-437-963-112078	Sequence 112078,
104	29	87.9	592	13	US-10-027-806-80	Sequence 80, Appl
105	29	87.9	592	13	US-10-034-623-80	Sequence 80, Appl
106	29	87.9	592	14	US-10-027-801-80	Sequence 80, Appl
107	29	87.9	592	14	US-10-029-120-80	Sequence 80, Appl
108	29	87.9	644	15	US-10-282-122A-68940	Sequence 68940, A
109	29	87.9	724	16	US-10-437-963-121905	Sequence 121905,
110	29	87.9	774	16	US-10-408-765A-1593	Sequence 1593, Ap
111	29	87.9	911	16	US-10-425-115-314053	Sequence 314053,
112	29	87.9	1270	15	US-10-369-493-6951	Sequence 6951, Ap
113	29	87.9	1291	15	US-10-369-493-6949	Sequence 6949, Ap
114	29	87.9	1318	15	US-10-369-493-6948	Sequence 6948, Ap
115	29	87.9	1327	15	US-10-369-493-6950	Sequence 6950, Ap
116	29	87.9	1420	14	US-10-032-585-7606	Sequence 7606, Ap
117	28	84.8	5	9	US-09-818-247-26	Sequence 26, Appl
118	28	84.8	5	10	US-09-949-039-33	Sequence 33, Appl
119	28	84.8	5	20	US-11-038-956-26	Sequence 26, Appl
120	28	84.8	6	9	US-09-818-247-11	Sequence 11, Appl
121	28	84.8	6	10	US-09-949-039-35	Sequence 35, Appl
122	28	84.8	6	20	US-11-038-956-11	Sequence 11, Appl
123	28	84.8	9	9	US-09-818-247-16	Sequence 16, Appl
124	28	84.8	9	20	US-11-038-956-16	Sequence 16, Appl
125	28	84.8	12	9	US-09-818-247-13	Sequence 13, Appl
126	28	84.8	12	9	US-09-818-247-14	Sequence 14, Appl
127	28	84.8	12	20	US-11-038-956-13	Sequence 13, Appl
128	28	84.8	12	20	US-11-038-956-14	Sequence 14, Appl
129	28	84.8	44	15	US-10-424-599-191424	Sequence 191424,
130	28	84.8	63	15	US-10-424-599-165420	Sequence 165420,
131	28	84.8	65	16	US-10-425-115-283745	Sequence 283745,
132	28	84.8	78	15	US-10-424-599-183374	Sequence 183374,
133	28	84.8	84	15	US-10-424-599-230359	Sequence 230359,
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135	28	84.8	87	11	US-09-864-408A-3050	Sequence 3050, Ap
136	28	84.8	93	9	US-09-818-247-18	Sequence 18, Appl
137	28	84.8	93	16	US-10-425-115-197750	Sequence 197750,
138	28	84.8	93	20	US-11-038-956-18	Sequence 18, Appl
139	28	84.8	95	15	US-10-424-599-214855	Sequence 214855,
140	28	84.8	98	9	US-09-818-247-21	Sequence 21, Appl
141	28	84.8	98	20	US-11-038-956-21	Sequence 21, Appl
142	28	84.8	104	15	US-10-424-599-229528	Sequence 229528,
143	28	84.8	105	16	US-10-425-115-327346	Sequence 327346,
144	28	84.8	108	16	US-10-437-963-114551	Sequence 114551,
145	28	84.8	110	15	US-10-424-599-281953	Sequence 281953,
146	28	84.8	117	10	US-09-969-748C-105	Sequence 105, App
147	28	84.8	117	10	US-09-949-039-102	Sequence 102, App
148	28	84.8	117	16	US-10-425-115-238589	Sequence 238589,
149	28	84.8	118	11	US-09-833-245-109	Sequence 109, App
150	28	84.8	118	11	US-09-833-245-111	Sequence 111, App

ALIGNMENTS

RESULT 1
US-09-818-247-10

; Sequence 10, Application US/09818247
; Patent No. US20020102657A1
; GENERAL INFORMATION:
; APPLICANT: Mostov, Keith E.
; APPLICANT: Chapin, Steven J.
; APPLICANT: Richman-Eisenstat, Janice
; APPLICANT: The Regents of the University of California
; TITLE OF INVENTION: Ligands Directed to the No. US20020102657A1-Secretory Component,
; TITLE OF INVENTION: No. US20020102657A1-Stalk Region of pIgR and Methods of Use There
; FILE REFERENCE: 18062E-000910US
; CURRENT APPLICATION NUMBER: US/09/818,247
; CURRENT FILING DATE: 2001-03-26
; PRIOR APPLICATION NUMBER: WO PCT/US01/09699
; PRIOR FILING DATE: 2001-03-26
; PRIOR APPLICATION NUMBER: US 60/192,197
; PRIOR FILING DATE: 2000-03-27
; PRIOR APPLICATION NUMBER: US 60/192,198
; PRIOR FILING DATE: 2000-03-27
; NUMBER OF SEQ ID NOS: 26
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 10
; LENGTH: 6
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:human pIgR
; OTHER INFORMATION: epitope for scFv and antibody 4A
US-09-818-247-10

Query Match 100.0%; Score 33; DB 9; Length 6;
Best Local Similarity 100.0%; Pred. No. 1.6e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 QDPRLF 6
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Db 1 QDPRLF 6

RESULT 2
US-09-949-039-34
; Sequence 34, Application US/09949039
; Publication No. US20030166160A1
; GENERAL INFORMATION:
; APPLICANT: HAWLEY, STEPHEN B.
; TITLE OF INVENTION: COMPOUNDS AND MOLECULAR COMPLEXES COMPRISING MULTIPLE
; TITLE OF INVENTION: BINDING REGIONS DIRECTED TO TRANSCYTOTIC LIGANDS
; FILE REFERENCE: 057220/1301
; CURRENT APPLICATION NUMBER: US/09/949,039
; CURRENT FILING DATE: 2001-09-06
; NUMBER OF SEQ ID NOS: 114
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 34
; LENGTH: 6
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-949-039-34

Query Match 100.0%; Score 33; DB 10; Length 6;
Best Local Similarity 100.0%; Pred. No. 1.6e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 QDPRLF 6
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Db 1 QDPRLF 6

RESULT 3
US-10-470-987-26
; Sequence 26, Application US/10470987
; Publication No. US20040219542A1
; GENERAL INFORMATION:
; APPLICANT: HOUSTON, LOU L.
; APPLICANT: SHERIDAN, PHILIP L.

```
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR IDENTIFYING, CHARACTERIZING,
;  TITLE OF INVENTION:  OPTIMIZING AND USING LIGANDS TO TRANSCYTOTIC MOLECULES
;  FILE REFERENCE: 057220/0703
;  CURRENT APPLICATION NUMBER: US/10/470,987
;  CURRENT FILING DATE:  2003-07-30
;  PRIOR APPLICATION NUMBER: PCT/US02/03059
;  PRIOR FILING DATE: 2002-02-01
;  PRIOR APPLICATION NUMBER: 60/266,182
;  PRIOR FILING DATE: 2001-02-02
;  NUMBER OF SEQ ID NOS: 48
;  SOFTWARE: PatentIn Ver. 3.2
; SEQ ID NO 26
;   LENGTH: 6
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: Illustrative
;   OTHER INFORMATION: known epitope
US-10-470-987-26

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  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
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Db          1 QDPRLF 6


RESULT 4
US-10-754-485-44
; Sequence 44, Application US/10754485
; Publication No. US20050036951A1
; GENERAL INFORMATION:
;  APPLICANT: HENDERSON, DANIEL R.
;  TITLE OF INVENTION: METHODS OF TREATING LUNG DISEASES
;  FILE REFERENCE: 057220/2302
;  CURRENT APPLICATION NUMBER: US/10/754,485
;  CURRENT FILING DATE:  2004-01-09
;  PRIOR APPLICATION NUMBER: 60/439,373
;  PRIOR FILING DATE: 2003-01-09
;  PRIOR APPLICATION NUMBER: 60/480,047
;  PRIOR FILING DATE: 2003-06-20
;  PRIOR APPLICATION NUMBER: 60/494,841
;  PRIOR FILING DATE: 2003-08-12
;  NUMBER OF SEQ ID NOS: 54
;  SOFTWARE: PatentIn Ver. 3.2
; SEQ ID NO 44
;   LENGTH: 6
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: Synthetic
;   OTHER INFORMATION: peptide
US-10-754-485-44

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  Best Local Similarity  100.0%;  Pred. No. 1.6e+06;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
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Db          1 QDPRLF 6


RESULT 5
US-11-038-956-10
; Sequence 10, Application US/11038956
; Publication No. US20050201932A1
; GENERAL INFORMATION:
;  APPLICANT: Mostov, Keith E.
;  APPLICANT:  Chapin, Steven J.
;  APPLICANT:  Richman-Eisenstat, Janice
;  APPLICANT:  The Regents of the University of California
;  TITLE OF INVENTION: Ligands Directed to the Non-Secretory Component,
;  TITLE OF INVENTION:  Non-Stalk Region of pIgR and Methods of Use Thereof
;  FILE REFERENCE: 18062E-000910US
;  CURRENT APPLICATION NUMBER: US/11/038,956
;  CURRENT FILING DATE:  2005-01-19
;  PRIOR APPLICATION NUMBER: US/09/818,247
;  PRIOR FILING DATE: 2001-03-26
;  PRIOR APPLICATION NUMBER: WO PCT/US01/09699
;  PRIOR FILING DATE: 2001-03-26
;  PRIOR APPLICATION NUMBER: US 60/192,197
;  PRIOR FILING DATE: 2000-03-27
;  PRIOR APPLICATION NUMBER: US 60/192,198
;  PRIOR FILING DATE: 2000-03-27
;  NUMBER OF SEQ ID NOS: 26
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 10
;   LENGTH: 6
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:human pIgR
;   OTHER INFORMATION: epitope for scFv and antibody 4A
US-11-038-956-10

  Query Match           100.0%;  Score 33;  DB 20;  Length 6;
  Best Local Similarity  100.0%;  Pred. No. 1.6e+06;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
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Db          1 QDPRLF 6


RESULT 6
US-09-818-247-12
; Sequence 12, Application US/09818247
; Patent No. US20020102657A1
; GENERAL INFORMATION:
;  APPLICANT: Mostov, Keith E.
;  APPLICANT:  Chapin, Steven J.
;  APPLICANT:  Richman-Eisenstat, Janice
;  APPLICANT:  The Regents of the University of California
;  TITLE OF INVENTION: Ligands Directed to the No. US20020102657A1-Secretory Component,
;  TITLE OF INVENTION:  No. US20020102657A1-Stalk Region of pIgR and Methods of Use There
;  FILE REFERENCE: 18062E-000910US
;  CURRENT APPLICATION NUMBER: US/09/818,247
;  CURRENT FILING DATE:  2001-03-26
;  PRIOR APPLICATION NUMBER: WO PCT/US01/09699
;  PRIOR FILING DATE: 2001-03-26
;  PRIOR APPLICATION NUMBER: US 60/192,197
;  PRIOR FILING DATE: 2000-03-27
;  PRIOR APPLICATION NUMBER: US 60/192,198
;  PRIOR FILING DATE: 2000-03-27
;  NUMBER OF SEQ ID NOS: 26
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 12
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:human pIgR
;   OTHER INFORMATION: epitope for antibody 5D
US-09-818-247-12

  Query Match           100.0%;  Score 33;  DB 9;  Length 9;
  Best Local Similarity  100.0%;  Pred. No. 1.6e+06;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
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Db          4 QDPRLF 9
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RESULT 7
US-11-038-956-12
; Sequence 12, Application US/11038956
; Publication No. US20050201932A1
; GENERAL INFORMATION:
;  APPLICANT: Mostov, Keith E.
;  APPLICANT:  Chapin, Steven J.
;  APPLICANT:  Richman-Eisenstat, Janice
;  APPLICANT:  The Regents of the University of California
;  TITLE OF INVENTION: Ligands Directed to the Non-Secretory Component,
;  TITLE OF INVENTION:  Non-Stalk Region of pIgR and Methods of Use Thereof
;  FILE REFERENCE: 18062E-000910US
;  CURRENT APPLICATION NUMBER: US/11/038,956
;  CURRENT FILING DATE:  2005-01-19
;  PRIOR APPLICATION NUMBER: US/09/818,247
;  PRIOR FILING DATE: 2001-03-26
;  PRIOR APPLICATION NUMBER: WO PCT/US01/09699
;  PRIOR FILING DATE: 2001-03-26
;  PRIOR APPLICATION NUMBER: US 60/192,197
;  PRIOR FILING DATE: 2000-03-27
;  PRIOR APPLICATION NUMBER: US 60/192,198
;  PRIOR FILING DATE: 2000-03-27
;  NUMBER OF SEQ ID NOS: 26
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 12
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:human pIgR
;   OTHER INFORMATION: epitope for antibody 5D
US-11-038-956-12

  Query Match           100.0%;  Score 33;  DB 20;  Length 9;
  Best Local Similarity  100.0%;  Pred. No. 1.6e+06;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
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Db          4 QDPRLF 9


RESULT 8
US-09-969-748C-74
; Sequence 74, Application US/09969748C
; Publication No. US20030161809A1
; GENERAL INFORMATION:
;  APPLICANT: ARIZEKE PHARMACEUTICALS, INC.
;  APPLICANT:  HOUSTON, Lou, L.
;  APPLICANT:  SHERIDAN, Philip, J.
;  APPLICANT:  HAWLEY, Stephen
;  APPLICANT:  GLYNN, Jacqueline, M.
;  APPLICANT:  CHAPIN, Steven
;  APPLICANT:  BASU, Amaresh
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE TRANSPORT OF BIOLOGICALLY ACTIVE
;  TITLE OF INVENTION:  AGENTS ACROSS CELLULAR BARRIERS
;  FILE REFERENCE: 057220-0303
;  CURRENT APPLICATION NUMBER: US/09/969,748C
;  CURRENT FILING DATE:  2002-12-10
;  PRIOR APPLICATION NUMBER: US 60/267,601
;  PRIOR FILING DATE: 2001-02-09
;  PRIOR APPLICATION NUMBER: US 60/248,819
;  PRIOR FILING DATE: 2000-11-14
;  PRIOR APPLICATION NUMBER: US 60/248,478
;  PRIOR FILING DATE: 2000-11-13
;  PRIOR APPLICATION NUMBER: US 60/237,929
;  PRIOR FILING DATE: 2000-10-02
;  NUMBER OF SEQ ID NOS: 115
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 74
;   LENGTH: 10
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: synthetic oligopeptide
US-09-969-748C-74

  Query Match           100.0%;  Score 33;  DB 10;  Length 10;
  Best Local Similarity  100.0%;  Pred. No. 4.4;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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Db          3 QDPRLF 8


RESULT 9
US-10-062-467A-45
; Sequence 45, Application US/10062467A
; Publication No. US20030224443A1
; GENERAL INFORMATION:
;  APPLICANT: HIATT, ANDREW C.
;  APPLICANT:  HEIN, MICH B.
;  APPLICANT:  FITCHEN, JOHN H.
;  TITLE OF INVENTION: J CHAIN POLYPEPTIDE TARGETING MOLECULE LINKED TO AN IMAGING AGENT
;  FILE REFERENCE: EPI3003C
;  CURRENT APPLICATION NUMBER: US/10/062,467A
;  CURRENT FILING DATE:  2002-02-05
;  PRIOR APPLICATION NUMBER: 08/782,480
;  PRIOR FILING DATE: 1997-01-10
;  PRIOR APPLICATION NUMBER: 09/005,167
;  PRIOR FILING DATE: 1998-01-09
;  NUMBER OF SEQ ID NOS: 93
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 45
;   LENGTH: 16
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-062-467A-45

  Query Match           100.0%;  Score 33;  DB 15;  Length 16;
  Best Local Similarity  100.0%;  Pred. No. 7;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db          3 QDPRLF 8


RESULT 10
US-09-969-748C-71
; Sequence 71, Application US/09969748C
; Publication No. US20030161809A1
; GENERAL INFORMATION:
;  APPLICANT: ARIZEKE PHARMACEUTICALS, INC.
;  APPLICANT:  HOUSTON, Lou, L.
;  APPLICANT:  SHERIDAN, Philip, J.
;  APPLICANT:  HAWLEY, Stephen
;  APPLICANT:  GLYNN, Jacqueline, M.
;  APPLICANT:  CHAPIN, Steven
;  APPLICANT:  BASU, Amaresh
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE TRANSPORT OF BIOLOGICALLY ACTIVE
;  TITLE OF INVENTION:  AGENTS ACROSS CELLULAR BARRIERS
;  FILE REFERENCE: 057220-0303
;  CURRENT APPLICATION NUMBER: US/09/969,748C
;  CURRENT FILING DATE:  2002-12-10
;  PRIOR APPLICATION NUMBER: US 60/267,601
;  PRIOR FILING DATE: 2001-02-09
;  PRIOR APPLICATION NUMBER: US 60/248,819
;  PRIOR FILING DATE: 2000-11-14
;  PRIOR APPLICATION NUMBER: US 60/248,478
;  PRIOR FILING DATE: 2000-11-13
;  PRIOR APPLICATION NUMBER: US 60/237,929
;  PRIOR FILING DATE: 2000-10-02
;  NUMBER OF SEQ ID NOS: 115
```

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;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 71
;   LENGTH: 18
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: synthetic oligopeptide
US-09-969-748C-71

  Query Match             100.0%;  Score 33;  DB 10;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 7.9;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db          7 QDPRLF 12


RESULT 11
US-09-969-748C-72
; Sequence 72, Application US/09969748C
; Publication No. US20030161809A1
; GENERAL INFORMATION:
;  APPLICANT: ARIZEKE PHARMACEUTICALS, INC.
;  APPLICANT:  HOUSTON, Lou, L.
;  APPLICANT:  SHERIDAN, Philip, J.
;  APPLICANT:  HAWLEY, Stephen
;  APPLICANT:  GLYNN, Jacqueline, M.
;  APPLICANT:  CHAPIN, Steven
;  APPLICANT:  BASU, Amaresh
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE TRANSPORT OF BIOLOGICALLY ACTIVE
;  TITLE OF INVENTION:  AGENTS ACROSS CELLULAR BARRIERS
;  FILE REFERENCE: 057220-0303
;  CURRENT APPLICATION NUMBER: US/09/969,748C
;  CURRENT FILING DATE:  2002-12-10
;  PRIOR APPLICATION NUMBER: US 60/267,601
;  PRIOR FILING DATE: 2001-02-09
;  PRIOR APPLICATION NUMBER: US 60/248,819
;  PRIOR FILING DATE: 2000-11-14
;  PRIOR APPLICATION NUMBER: US 60/248,478
;  PRIOR FILING DATE: 2000-11-13
;  PRIOR APPLICATION NUMBER: US 60/237,929
;  PRIOR FILING DATE: 2000-10-02
;  NUMBER OF SEQ ID NOS: 115
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 72
;   LENGTH: 23
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: synthetic oligopeptide
US-09-969-748C-72

  Query Match             100.0%;  Score 33;  DB 10;  Length 23;
  Best Local Similarity   100.0%;  Pred. No. 10;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db         12 QDPRLF 17


RESULT 12
US-09-969-748C-73
; Sequence 73, Application US/09969748C
; Publication No. US20030161809A1
; GENERAL INFORMATION:
;  APPLICANT: ARIZEKE PHARMACEUTICALS, INC.
;  APPLICANT:  HOUSTON, Lou, L.
;  APPLICANT:  SHERIDAN, Philip, J.
;  APPLICANT:  HAWLEY, Stephen
;  APPLICANT:  GLYNN, Jacqueline, M.
;  APPLICANT:  CHAPIN, Steven
;  APPLICANT:  BASU, Amaresh
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE TRANSPORT OF BIOLOGICALLY ACTIVE
;  TITLE OF INVENTION:  AGENTS ACROSS CELLULAR BARRIERS
;  FILE REFERENCE: 057220-0303
;  CURRENT APPLICATION NUMBER: US/09/969,748C
;  CURRENT FILING DATE:  2002-12-10
;  PRIOR APPLICATION NUMBER: US 60/267,601
;  PRIOR FILING DATE: 2001-02-09
;  PRIOR APPLICATION NUMBER: US 60/248,819
;  PRIOR FILING DATE: 2000-11-14
;  PRIOR APPLICATION NUMBER: US 60/248,478
;  PRIOR FILING DATE: 2000-11-13
;  PRIOR APPLICATION NUMBER: US 60/237,929
;  PRIOR FILING DATE: 2000-10-02
;  NUMBER OF SEQ ID NOS: 115
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 73
;   LENGTH: 24
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: synthetic oligopeptide
US-09-969-748C-73

  Query Match             100.0%;  Score 33;  DB 10;  Length 24;
  Best Local Similarity   100.0%;  Pred. No. 10;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db          7 QDPRLF 12


RESULT 13
US-09-949-039-110
; Sequence 110, Application US/09949039
; Publication No. US20030166160A1
; GENERAL INFORMATION:
;  APPLICANT: HAWLEY, STEPHEN B.
;  TITLE OF INVENTION: COMPOUNDS AND MOLECULAR COMPLEXES COMPRISING MULTIPLE
;  TITLE OF INVENTION:  BINDING REGIONS DIRECTED TO TRANSCYTOTIC LIGANDS
;  FILE REFERENCE: 057220/1301
;  CURRENT APPLICATION NUMBER: US/09/949,039
;  CURRENT FILING DATE:  2001-09-06
;  NUMBER OF SEQ ID NOS: 114
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 110
;   LENGTH: 41
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-949-039-110

  Query Match             100.0%;  Score 33;  DB 10;  Length 41;
  Best Local Similarity   100.0%;  Pred. No. 18;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db          3 QDPRLF 8


RESULT 14
US-09-949-039-111
; Sequence 111, Application US/09949039
; Publication No. US20030166160A1
; GENERAL INFORMATION:
;  APPLICANT: HAWLEY, STEPHEN B.
;  TITLE OF INVENTION: COMPOUNDS AND MOLECULAR COMPLEXES COMPRISING MULTIPLE
;  TITLE OF INVENTION:  BINDING REGIONS DIRECTED TO TRANSCYTOTIC LIGANDS
;  FILE REFERENCE: 057220/1301
;  CURRENT APPLICATION NUMBER: US/09/949,039
;  CURRENT FILING DATE:  2001-09-06
;  NUMBER OF SEQ ID NOS: 114
```

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;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 111
;   LENGTH: 41
;   TYPE: PRT
;   ORGANISM: Simia sp.
US-09-949-039-111

  Query Match            100.0%;  Score 33;  DB 10;  Length 41;
  Best Local Similarity   100.0%;  Pred. No. 18;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db          3 QDPRLF 8


RESULT 15
US-09-818-247-17
; Sequence 17, Application US/09818247
; Patent No. US20020102657A1
; GENERAL INFORMATION:
;  APPLICANT: Mostov, Keith E.
;  APPLICANT:  Chapin, Steven J.
;  APPLICANT:  Richman-Eisenstat, Janice
;  APPLICANT:  The Regents of the University of California
;  TITLE OF INVENTION: Ligands Directed to the No. US20020102657A1-Secretory Component,
;  TITLE OF INVENTION:  No. US20020102657A1-Stalk Region of pIgR and Methods of Use Ther
;  FILE REFERENCE: 18062E-000910US
;  CURRENT APPLICATION NUMBER: US/09/818,247
;  CURRENT FILING DATE:  2001-03-26
;  PRIOR APPLICATION NUMBER: WO PCT/US01/09699
;  PRIOR FILING DATE: 2001-03-26
;  PRIOR APPLICATION NUMBER: US 60/192,197
;  PRIOR FILING DATE: 2000-03-27
;  PRIOR APPLICATION NUMBER: US 60/192,198
;  PRIOR FILING DATE: 2000-03-27
;  NUMBER OF SEQ ID NOS: 26
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 17
;   LENGTH: 90
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:portion of
;   OTHER INFORMATION: human pIgR encompassing part of domain 5 and
;   OTHER INFORMATION: domain 6
US-09-818-247-17

  Query Match            100.0%;  Score 33;  DB 9;  Length 90;
  Best Local Similarity   100.0%;  Pred. No. 39;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db         52 QDPRLF 57


RESULT 16
US-11-038-956-17
; Sequence 17, Application US/11038956
; Publication No. US20050201932A1
; GENERAL INFORMATION:
;  APPLICANT: Mostov, Keith E.
;  APPLICANT:  Chapin, Steven J.
;  APPLICANT:  Richman-Eisenstat, Janice
;  APPLICANT:  The Regents of the University of California
;  TITLE OF INVENTION: Ligands Directed to the Non-Secretory Component,
;  TITLE OF INVENTION:  Non-Stalk Region of pIgR and Methods of Use Thereof
;  FILE REFERENCE: 18062E-000910US
;  CURRENT APPLICATION NUMBER: US/11/038,956
;  CURRENT FILING DATE:  2005-01-19
;  PRIOR APPLICATION NUMBER: US/09/818,247
;  PRIOR FILING DATE: 2001-03-26
;  PRIOR APPLICATION NUMBER: WO PCT/US01/09699
;  PRIOR FILING DATE: 2001-03-26
;  PRIOR APPLICATION NUMBER: US 60/192,197
;  PRIOR FILING DATE: 2000-03-27
;  PRIOR APPLICATION NUMBER: US 60/192,198
;  PRIOR FILING DATE: 2000-03-27
;  NUMBER OF SEQ ID NOS: 26
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 17
;   LENGTH: 90
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:portion of
;   OTHER INFORMATION: human pIgR encompassing part of domain 5 and
;   OTHER INFORMATION: domain 6
US-11-038-956-17

  Query Match            100.0%;  Score 33;  DB 20;  Length 90;
  Best Local Similarity   100.0%;  Pred. No. 39;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db         52 QDPRLF 57


RESULT 17
US-09-969-748C-107
; Sequence 107, Application US/09969748C
; Publication No. US20030161809A1
; GENERAL INFORMATION:
;  APPLICANT: ARIZEKE PHARMACEUTICALS, INC.
;  APPLICANT:  HOUSTON, Lou, L.
;  APPLICANT:  SHERIDAN, Philip, J.
;  APPLICANT:  HAWLEY, Stephen
;  APPLICANT:  GLYNN, Jacqueline, M.
;  APPLICANT:  CHAPIN, Steven
;  APPLICANT:  BASU, Amaresh
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE TRANSPORT OF BIOLOGICALLY ACTIVE
;  TITLE OF INVENTION:  AGENTS ACROSS CELLULAR BARRIERS
;  FILE REFERENCE: 057220-0303
;  CURRENT APPLICATION NUMBER: US/09/969,748C
;  CURRENT FILING DATE:  2002-12-10
;  PRIOR APPLICATION NUMBER: US 60/267,601
;  PRIOR FILING DATE: 2001-02-09
;  PRIOR APPLICATION NUMBER: US 60/248,819
;  PRIOR FILING DATE: 2000-11-14
;  PRIOR APPLICATION NUMBER: US 60/248,478
;  PRIOR FILING DATE: 2000-11-13
;  PRIOR APPLICATION NUMBER: US 60/237,929
;  PRIOR FILING DATE: 2000-10-02
;  NUMBER OF SEQ ID NOS: 115
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 107
;   LENGTH: 94
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: consensus sequence
US-09-969-748C-107

  Query Match            100.0%;  Score 33;  DB 10;  Length 94;
  Best Local Similarity   100.0%;  Pred. No. 40;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db         57 QDPRLF 62


RESULT 18
US-10-470-987-36
```

; Sequence 36, Application US/10470987
; Publication No. US20040219542A1
; GENERAL INFORMATION:
; APPLICANT: HOUSTON, LOU L.
; APPLICANT: SHERIDAN, PHILIP L.
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR IDENTIFYING, CHARACTERIZING,
; TITLE OF INVENTION: OPTIMIZING AND USING LIGANDS TO TRANSCYTOTIC MOLECULES
; FILE REFERENCE: 057220/0703
; CURRENT APPLICATION NUMBER: US/10/470,987
; CURRENT FILING DATE: 2003-07-30
; PRIOR APPLICATION NUMBER: PCT/US02/03059
; PRIOR FILING DATE: 2002-02-01
; PRIOR APPLICATION NUMBER: 60/266,182
; PRIOR FILING DATE: 2001-02-02
; NUMBER OF SEQ ID NOS: 48
; SOFTWARE: PatentIn Ver. 3.2
; SEQ ID NO 36
; LENGTH: 94
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-470-987-36

Query Match 100.0%; Score 33; DB 16; Length 94;
Best Local Similarity 100.0%; Pred. No. 40;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 QDPRLF 6
||||||
Db 56 QDPRLF 61

RESULT 19
US-10-470-987-37
; Sequence 37, Application US/10470987
; Publication No. US20040219542A1
; GENERAL INFORMATION:
; APPLICANT: HOUSTON, LOU L.
; APPLICANT: SHERIDAN, PHILIP L.
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR IDENTIFYING, CHARACTERIZING,
; TITLE OF INVENTION: OPTIMIZING AND USING LIGANDS TO TRANSCYTOTIC MOLECULES
; FILE REFERENCE: 057220/0703
; CURRENT APPLICATION NUMBER: US/10/470,987
; CURRENT FILING DATE: 2003-07-30
; PRIOR APPLICATION NUMBER: PCT/US02/03059
; PRIOR FILING DATE: 2002-02-01
; PRIOR APPLICATION NUMBER: 60/266,182
; PRIOR FILING DATE: 2001-02-02
; NUMBER OF SEQ ID NOS: 48
; SOFTWARE: PatentIn Ver. 3.2
; SEQ ID NO 37
; LENGTH: 94
; TYPE: PRT
; ORGANISM: Macaca fascicularis
US-10-470-987-37

Query Match 100.0%; Score 33; DB 16; Length 94;
Best Local Similarity 100.0%; Pred. No. 40;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 QDPRLF 6
||||||
Db 56 QDPRLF 61

RESULT 20
US-10-470-987-44
; Sequence 44, Application US/10470987
; Publication No. US20040219542A1
; GENERAL INFORMATION:
; APPLICANT: HOUSTON, LOU L.
; APPLICANT: SHERIDAN, PHILIP L.
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR IDENTIFYING, CHARACTERIZING,
; TITLE OF INVENTION: OPTIMIZING AND USING LIGANDS TO TRANSCYTOTIC MOLECULES
; FILE REFERENCE: 057220/0703
; CURRENT APPLICATION NUMBER: US/10/470,987
; CURRENT FILING DATE: 2003-07-30
; PRIOR APPLICATION NUMBER: PCT/US02/03059
; PRIOR FILING DATE: 2002-02-01
; PRIOR APPLICATION NUMBER: 60/266,182
; PRIOR FILING DATE: 2001-02-02
; NUMBER OF SEQ ID NOS: 48
; SOFTWARE: PatentIn Ver. 3.2
; SEQ ID NO 44
; LENGTH: 94
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: pIgR stalk
; OTHER INFORMATION: consensus sequence
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (21)..(21)
; OTHER INFORMATION: Variable amino acid
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (28)..(28)
; OTHER INFORMATION: Variable amino acid
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (48)..(48)
; OTHER INFORMATION: Variable amino acid
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (71)..(71)
; OTHER INFORMATION: Variable amino acid
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (75)..(75)
; OTHER INFORMATION: Variable amino acid
US-10-470-987-44

Query Match 100.0%; Score 33; DB 16; Length 94;
Best Local Similarity 100.0%; Pred. No. 40;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 QDPRLF 6
||||||
Db 56 QDPRLF 61

RESULT 21
US-09-818-247-20
; Sequence 20, Application US/09818247
; Patent No. US20020102657A1
; GENERAL INFORMATION:
; APPLICANT: Mostov, Keith E.
; APPLICANT: Chapin, Steven J.
; APPLICANT: Richman-Eisenstat, Janice
; APPLICANT: The Regents of the University of California
; TITLE OF INVENTION: Ligands Directed to the No. US20020102657A1-Secretory Component,
; TITLE OF INVENTION: No. US20020102657A1-Stalk Region of pIgR and Methods of Use There
; FILE REFERENCE: 18062E-000910US
; CURRENT APPLICATION NUMBER: US/09/818,247
; CURRENT FILING DATE: 2001-03-26
; PRIOR APPLICATION NUMBER: WO PCT/US01/09699
; PRIOR FILING DATE: 2001-03-26
; PRIOR APPLICATION NUMBER: US 60/192,197
; PRIOR FILING DATE: 2000-03-27
; PRIOR APPLICATION NUMBER: US 60/192,198
; PRIOR FILING DATE: 2000-03-27
; NUMBER OF SEQ ID NOS: 26
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 20
; LENGTH: 95
; TYPE: PRT
; ORGANISM: Artificial Sequence

```
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:portion of
;   OTHER INFORMATION: human pIgR
US-09-818-247-20

  Query Match            100.0%;  Score 33;  DB 9;  Length 95;
  Best Local Similarity  100.0%;  Pred. No. 41;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db         57 QDPRLF 62


RESULT 22
US-11-038-956-20
; Sequence 20, Application US/11038956
; Publication No. US20050201932A1
; GENERAL INFORMATION:
;  APPLICANT: Mostov, Keith E.
;  APPLICANT:  Chapin, Steven J.
;  APPLICANT:  Richman-Eisenstat, Janice
;  APPLICANT:  The Regents of the University of California
;  TITLE OF INVENTION: Ligands Directed to the Non-Secretory Component,
;  TITLE OF INVENTION:  Non-Stalk Region of pIgR and Methods of Use Thereof
;  FILE REFERENCE: 18062E-000910US
;  CURRENT APPLICATION NUMBER: US/11/038,956
;  CURRENT FILING DATE:  2005-01-19
;  PRIOR APPLICATION NUMBER: US/09/818,247
;  PRIOR FILING DATE: 2001-03-26
;  PRIOR APPLICATION NUMBER: WO PCT/US01/09699
;  PRIOR FILING DATE: 2001-03-26
;  PRIOR APPLICATION NUMBER: US 60/192,197
;  PRIOR FILING DATE: 2000-03-27
;  PRIOR APPLICATION NUMBER: US 60/192,198
;  PRIOR FILING DATE: 2000-03-27
;  NUMBER OF SEQ ID NOS: 26
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 20
;   LENGTH: 95
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:portion of
;   OTHER INFORMATION: human pIgR
US-11-038-956-20

  Query Match            100.0%;  Score 33;  DB 20;  Length 95;
  Best Local Similarity  100.0%;  Pred. No. 41;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db         57 QDPRLF 62


RESULT 23
US-09-969-748C-103
; Sequence 103, Application US/09969748C
; Publication No. US20030161809A1
; GENERAL INFORMATION:
;  APPLICANT: ARIZEKE PHARMACEUTICALS, INC.
;  APPLICANT:  HOUSTON, Lou, L.
;  APPLICANT:  SHERIDAN, Philip, J.
;  APPLICANT:  HAWLEY, Stephen
;  APPLICANT:  GLYNN, Jacqueline, M.
;  APPLICANT:  CHAPIN, Steven
;  APPLICANT:  BASU, Amaresh
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE TRANSPORT OF BIOLOGICALLY ACTIVE
;  TITLE OF INVENTION:  AGENTS ACROSS CELLULAR BARRIERS
;  FILE REFERENCE: 057220-0303
;  CURRENT APPLICATION NUMBER: US/09/969,748C
;  CURRENT FILING DATE:  2002-12-10
;  PRIOR APPLICATION NUMBER: US 60/267,601
;  PRIOR FILING DATE: 2001-02-09
;  PRIOR APPLICATION NUMBER: US 60/248,819
;  PRIOR FILING DATE: 2000-11-14
;  PRIOR APPLICATION NUMBER: US 60/248,478
;  PRIOR FILING DATE: 2000-11-13
;  PRIOR APPLICATION NUMBER: US 60/237,929
;  PRIOR FILING DATE: 2000-10-02
;  NUMBER OF SEQ ID NOS: 115
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 103
;   LENGTH: 102
;   TYPE: PRT
;   ORGANISM: Simian
US-09-969-748C-103

  Query Match            100.0%;  Score 33;  DB 10;  Length 102;
  Best Local Similarity  100.0%;  Pred. No. 44;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db         58 QDPRLF 63


RESULT 24
US-09-969-748C-104
; Sequence 104, Application US/09969748C
; Publication No. US20030161809A1
; GENERAL INFORMATION:
;  APPLICANT: ARIZEKE PHARMACEUTICALS, INC.
;  APPLICANT:  HOUSTON, Lou, L.
;  APPLICANT:  SHERIDAN, Philip, J.
;  APPLICANT:  HAWLEY, Stephen
;  APPLICANT:  GLYNN, Jacqueline, M.
;  APPLICANT:  CHAPIN, Steven
;  APPLICANT:  BASU, Amaresh
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE TRANSPORT OF BIOLOGICALLY ACTIVE
;  TITLE OF INVENTION:  AGENTS ACROSS CELLULAR BARRIERS
;  FILE REFERENCE: 057220-0303
;  CURRENT APPLICATION NUMBER: US/09/969,748C
;  CURRENT FILING DATE:  2002-12-10
;  PRIOR APPLICATION NUMBER: US 60/267,601
;  PRIOR FILING DATE: 2001-02-09
;  PRIOR APPLICATION NUMBER: US 60/248,819
;  PRIOR FILING DATE: 2000-11-14
;  PRIOR APPLICATION NUMBER: US 60/248,478
;  PRIOR FILING DATE: 2000-11-13
;  PRIOR APPLICATION NUMBER: US 60/237,929
;  PRIOR FILING DATE: 2000-10-02
;  NUMBER OF SEQ ID NOS: 115
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 104
;   LENGTH: 102
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-969-748C-104

  Query Match            100.0%;  Score 33;  DB 10;  Length 102;
  Best Local Similarity  100.0%;  Pred. No. 44;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db         58 QDPRLF 63


RESULT 25
US-09-949-039-100
; Sequence 100, Application US/09949039
; Publication No. US20030166160A1
; GENERAL INFORMATION:
;  APPLICANT: HAWLEY, STEPHEN B.
```

```
;  TITLE OF INVENTION: COMPOUNDS AND MOLECULAR COMPLEXES COMPRISING MULTIPLE
;  TITLE OF INVENTION:  BINDING REGIONS DIRECTED TO TRANSCYTOTIC LIGANDS
;  FILE REFERENCE: 057220/1301
;  CURRENT APPLICATION NUMBER: US/09/949,039
;  CURRENT FILING DATE:  2001-09-06
;  NUMBER OF SEQ ID NOS: 114
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 100
;   LENGTH: 102
;   TYPE: PRT
;   ORGANISM: Simia sp.
US-09-949-039-100

  Query Match             100.0%;  Score 33;  DB 10;  Length 102;
  Best Local Similarity   100.0%;  Pred. No. 44;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db         58 QDPRLF 63


RESULT 26
US-09-949-039-101
; Sequence 101, Application US/09949039
; Publication No. US20030166160A1
; GENERAL INFORMATION:
;  APPLICANT: HAWLEY, STEPHEN B.
;  TITLE OF INVENTION: COMPOUNDS AND MOLECULAR COMPLEXES COMPRISING MULTIPLE
;  TITLE OF INVENTION:  BINDING REGIONS DIRECTED TO TRANSCYTOTIC LIGANDS
;  FILE REFERENCE: 057220/1301
;  CURRENT APPLICATION NUMBER: US/09/949,039
;  CURRENT FILING DATE:  2001-09-06
;  NUMBER OF SEQ ID NOS: 114
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 101
;   LENGTH: 103
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-949-039-101

  Query Match             100.0%;  Score 33;  DB 10;  Length 103;
  Best Local Similarity   100.0%;  Pred. No. 44;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db         58 QDPRLF 63


RESULT 27
US-09-969-748C-108
; Sequence 108, Application US/09969748C
; Publication No. US20030161809A1
; GENERAL INFORMATION:
;  APPLICANT: ARIZEKE PHARMACEUTICALS, INC.
;  APPLICANT:  HOUSTON, Lou, L.
;  APPLICANT:  SHERIDAN, Philip, J.
;  APPLICANT:  HAWLEY, Stephen
;  APPLICANT:  GLYNN, Jacqueline, M.
;  APPLICANT:  CHAPIN, Steven
;  APPLICANT:  BASU, Amaresh
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE TRANSPORT OF BIOLOGICALLY ACTIVE
;  TITLE OF INVENTION:  AGENTS ACROSS CELLULAR BARRIERS
;  FILE REFERENCE: 057220-0303
;  CURRENT APPLICATION NUMBER: US/09/969,748C
;  CURRENT FILING DATE:  2002-12-10
;  PRIOR APPLICATION NUMBER: US 60/267,601
;  PRIOR FILING DATE: 2001-02-09
;  PRIOR APPLICATION NUMBER: US 60/248,819
;  PRIOR FILING DATE: 2000-11-14
;  PRIOR APPLICATION NUMBER: US 60/248,478
;  PRIOR FILING DATE: 2000-11-13
;  PRIOR APPLICATION NUMBER: US 60/237,929
;  PRIOR FILING DATE: 2000-10-02
;  NUMBER OF SEQ ID NOS: 115
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 108
;   LENGTH: 243
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-969-748C-108

  Query Match             100.0%;  Score 33;  DB 10;  Length 243;
  Best Local Similarity   100.0%;  Pred. No. 1e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        109 QDPRLF 114


RESULT 28
US-10-470-987-2
; Sequence 2, Application US/10470987
; Publication No. US20040219542A1
; GENERAL INFORMATION:
;  APPLICANT: HOUSTON, LOU L.
;  APPLICANT:  SHERIDAN, PHILIP L.
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR IDENTIFYING, CHARACTERIZING,
;  TITLE OF INVENTION:  OPTIMIZING AND USING LIGANDS TO TRANSCYTOTIC MOLECULES
;  FILE REFERENCE: 057220/0703
;  CURRENT APPLICATION NUMBER: US/10/470,987
;  CURRENT FILING DATE:  2003-07-30
;  PRIOR APPLICATION NUMBER: PCT/US02/03059
;  PRIOR FILING DATE: 2002-02-01
;  PRIOR APPLICATION NUMBER: 60/266,182
;  PRIOR FILING DATE: 2001-02-02
;  NUMBER OF SEQ ID NOS: 48
;  SOFTWARE: PatentIn Ver. 3.2
; SEQ ID NO 2
;   LENGTH: 243
;   TYPE: PRT
;   ORGANISM: Macaca fascicularis
US-10-470-987-2

  Query Match             100.0%;  Score 33;  DB 16;  Length 243;
  Best Local Similarity   100.0%;  Pred. No. 1e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        109 QDPRLF 114


RESULT 29
US-10-470-987-33
; Sequence 33, Application US/10470987
; Publication No. US20040219542A1
; GENERAL INFORMATION:
;  APPLICANT: HOUSTON, LOU L.
;  APPLICANT:  SHERIDAN, PHILIP L.
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR IDENTIFYING, CHARACTERIZING,
;  TITLE OF INVENTION:  OPTIMIZING AND USING LIGANDS TO TRANSCYTOTIC MOLECULES
;  FILE REFERENCE: 057220/0703
;  CURRENT APPLICATION NUMBER: US/10/470,987
;  CURRENT FILING DATE:  2003-07-30
;  PRIOR APPLICATION NUMBER: PCT/US02/03059
;  PRIOR FILING DATE: 2002-02-01
;  PRIOR APPLICATION NUMBER: 60/266,182
;  PRIOR FILING DATE: 2001-02-02
;  NUMBER OF SEQ ID NOS: 48
;  SOFTWARE: PatentIn Ver. 3.2
; SEQ ID NO 33
;   LENGTH: 243
;   TYPE: PRT
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```
;   ORGANISM: Homo sapiens
US-10-470-987-33

  Query Match             100.0%;  Score 33;  DB 16;  Length 243;
  Best Local Similarity   100.0%;  Pred. No. 1e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        109 QDPRLF 114


RESULT 30
US-10-470-987-34
; Sequence 34, Application US/10470987
; Publication No. US20040219542A1
; GENERAL INFORMATION:
;  APPLICANT: HOUSTON, LOU L.
;  APPLICANT:  SHERIDAN, PHILIP L.
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR IDENTIFYING, CHARACTERIZING,
;  TITLE OF INVENTION:  OPTIMIZING AND USING LIGANDS TO TRANSCYTOTIC MOLECULES
;  FILE REFERENCE: 057220/0703
;  CURRENT APPLICATION NUMBER: US/10/470,987
;  CURRENT FILING DATE:  2003-07-30
;  PRIOR APPLICATION NUMBER: PCT/US02/03059
;  PRIOR FILING DATE: 2002-02-01
;  PRIOR APPLICATION NUMBER: 60/266,182
;  PRIOR FILING DATE: 2001-02-02
;  NUMBER OF SEQ ID NOS: 48
;  SOFTWARE: PatentIn Ver. 3.2
; SEQ ID NO 34
;   LENGTH: 243
;   TYPE: PRT
;   ORGANISM: Macaca fascicularis
US-10-470-987-34

  Query Match             100.0%;  Score 33;  DB 16;  Length 243;
  Best Local Similarity   100.0%;  Pred. No. 1e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        109 QDPRLF 114


RESULT 31
US-10-470-987-39
; Sequence 39, Application US/10470987
; Publication No. US20040219542A1
; GENERAL INFORMATION:
;  APPLICANT: HOUSTON, LOU L.
;  APPLICANT:  SHERIDAN, PHILIP L.
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR IDENTIFYING, CHARACTERIZING,
;  TITLE OF INVENTION:  OPTIMIZING AND USING LIGANDS TO TRANSCYTOTIC MOLECULES
;  FILE REFERENCE: 057220/0703
;  CURRENT APPLICATION NUMBER: US/10/470,987
;  CURRENT FILING DATE:  2003-07-30
;  PRIOR APPLICATION NUMBER: PCT/US02/03059
;  PRIOR FILING DATE: 2002-02-01
;  PRIOR APPLICATION NUMBER: 60/266,182
;  PRIOR FILING DATE: 2001-02-02
;  NUMBER OF SEQ ID NOS: 48
;  SOFTWARE: PatentIn Ver. 3.2
; SEQ ID NO 39
;   LENGTH: 243
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-470-987-39

  Query Match             100.0%;  Score 33;  DB 16;  Length 243;
  Best Local Similarity   100.0%;  Pred. No. 1e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        109 QDPRLF 114


RESULT 32
US-10-470-987-40
; Sequence 40, Application US/10470987
; Publication No. US20040219542A1
; GENERAL INFORMATION:
;  APPLICANT: HOUSTON, LOU L.
;  APPLICANT:  SHERIDAN, PHILIP L.
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR IDENTIFYING, CHARACTERIZING,
;  TITLE OF INVENTION:  OPTIMIZING AND USING LIGANDS TO TRANSCYTOTIC MOLECULES
;  FILE REFERENCE: 057220/0703
;  CURRENT APPLICATION NUMBER: US/10/470,987
;  CURRENT FILING DATE:  2003-07-30
;  PRIOR APPLICATION NUMBER: PCT/US02/03059
;  PRIOR FILING DATE: 2002-02-01
;  PRIOR APPLICATION NUMBER: 60/266,182
;  PRIOR FILING DATE: 2001-02-02
;  NUMBER OF SEQ ID NOS: 48
;  SOFTWARE: PatentIn Ver. 3.2
; SEQ ID NO 40
;   LENGTH: 243
;   TYPE: PRT
;   ORGANISM: Macaca fascicularis
US-10-470-987-40

  Query Match             100.0%;  Score 33;  DB 16;  Length 243;
  Best Local Similarity   100.0%;  Pred. No. 1e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        109 QDPRLF 114


RESULT 33
US-10-470-987-41
; Sequence 41, Application US/10470987
; Publication No. US20040219542A1
; GENERAL INFORMATION:
;  APPLICANT: HOUSTON, LOU L.
;  APPLICANT:  SHERIDAN, PHILIP L.
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR IDENTIFYING, CHARACTERIZING,
;  TITLE OF INVENTION:  OPTIMIZING AND USING LIGANDS TO TRANSCYTOTIC MOLECULES
;  FILE REFERENCE: 057220/0703
;  CURRENT APPLICATION NUMBER: US/10/470,987
;  CURRENT FILING DATE:  2003-07-30
;  PRIOR APPLICATION NUMBER: PCT/US02/03059
;  PRIOR FILING DATE: 2002-02-01
;  PRIOR APPLICATION NUMBER: 60/266,182
;  PRIOR FILING DATE: 2001-02-02
;  NUMBER OF SEQ ID NOS: 48
;  SOFTWARE: PatentIn Ver. 3.2
; SEQ ID NO 41
;   LENGTH: 243
;   TYPE: PRT
;   ORGANISM: Macaca fascicularis
US-10-470-987-41

  Query Match             100.0%;  Score 33;  DB 16;  Length 243;
  Best Local Similarity   100.0%;  Pred. No. 1e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        109 QDPRLF 114


RESULT 34
US-10-470-987-43
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; Sequence 43, Application US/10470987
; Publication No. US20040219542A1
; GENERAL INFORMATION:
;  APPLICANT: HOUSTON, LOU L.
;  APPLICANT:  SHERIDAN, PHILIP L.
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR IDENTIFYING, CHARACTERIZING,
;  TITLE OF INVENTION:  OPTIMIZING AND USING LIGANDS TO TRANSCYTOTIC MOLECULES
;  FILE REFERENCE: 057220/0703
;  CURRENT APPLICATION NUMBER: US/10/470,987
;  CURRENT FILING DATE:  2003-07-30
;  PRIOR APPLICATION NUMBER: PCT/US02/03059
;  PRIOR FILING DATE: 2002-02-01
;  PRIOR APPLICATION NUMBER: 60/266,182
;  PRIOR FILING DATE: 2001-02-02
;  NUMBER OF SEQ ID NOS: 48
;  SOFTWARE: PatentIn Ver. 3.2
; SEQ ID NO 43
;   LENGTH: 243
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: pIgR consensus
;   OTHER INFORMATION: sequence
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (14)..(14)
;   OTHER INFORMATION: Variable amino acid
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (24)..(24)
;   OTHER INFORMATION: Variable amino acid
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (42)..(42)
;   OTHER INFORMATION: Variable amino acid
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (74)..(74)
;   OTHER INFORMATION: Variable amino acid
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (81)..(81)
;   OTHER INFORMATION: Variable amino acid
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (124)..(124)
;   OTHER INFORMATION: Variable amino acid
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (128)..(128)
;   OTHER INFORMATION: Variable amino acid
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (162)..(162)
;   OTHER INFORMATION: Variable amino acid
US-10-470-987-43

  Query Match             100.0%;  Score 33;  DB 16;  Length 243;
  Best Local Similarity   100.0%;  Pred. No. 1e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        109 QDPRLF 114


RESULT 35
US-10-470-987-45
; Sequence 45, Application US/10470987
; Publication No. US20040219542A1
; GENERAL INFORMATION:
;  APPLICANT: HOUSTON, LOU L.
;  APPLICANT:  SHERIDAN, PHILIP L.
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR IDENTIFYING, CHARACTERIZING,
;  TITLE OF INVENTION:  OPTIMIZING AND USING LIGANDS TO TRANSCYTOTIC MOLECULES
;  FILE REFERENCE: 057220/0703
;  CURRENT APPLICATION NUMBER: US/10/470,987
;  CURRENT FILING DATE:  2003-07-30
;  PRIOR APPLICATION NUMBER: PCT/US02/03059
;  PRIOR FILING DATE: 2002-02-01
;  PRIOR APPLICATION NUMBER: 60/266,182
;  PRIOR FILING DATE: 2001-02-02
;  NUMBER OF SEQ ID NOS: 48
;  SOFTWARE: PatentIn Ver. 3.2
; SEQ ID NO 45
;   LENGTH: 243
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: pIgR consensus
;   OTHER INFORMATION: sequence
US-10-470-987-45

  Query Match             100.0%;  Score 33;  DB 16;  Length 243;
  Best Local Similarity   100.0%;  Pred. No. 1e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        109 QDPRLF 114


RESULT 36
US-09-969-748C-109
; Sequence 109, Application US/09969748C
; Publication No. US20030161809A1
; GENERAL INFORMATION:
;  APPLICANT: ARIZEKE PHARMACEUTICALS, INC.
;  APPLICANT:  HOUSTON, Lou, L.
;  APPLICANT:  SHERIDAN, Philip, J.
;  APPLICANT:  HAWLEY, Stephen
;  APPLICANT:  GLYNN, Jacqueline, M.
;  APPLICANT:  CHAPIN, Steven
;  APPLICANT:  BASU, Amaresh
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE TRANSPORT OF BIOLOGICALLY ACTIVE
;  TITLE OF INVENTION:  AGENTS ACROSS CELLULAR BARRIERS
;  FILE REFERENCE: 057220-0303
;  CURRENT APPLICATION NUMBER: US/09/969,748C
;  CURRENT FILING DATE:  2002-12-10
;  PRIOR APPLICATION NUMBER: US 60/267,601
;  PRIOR FILING DATE: 2001-02-09
;  PRIOR APPLICATION NUMBER: US 60/248,819
;  PRIOR FILING DATE: 2000-11-14
;  PRIOR APPLICATION NUMBER: US 60/248,478
;  PRIOR FILING DATE: 2000-11-13
;  PRIOR APPLICATION NUMBER: US 60/237,929
;  PRIOR FILING DATE: 2000-10-02
;  NUMBER OF SEQ ID NOS: 115
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 109
;   LENGTH: 244
;   TYPE: PRT
;   ORGANISM: Simian
US-09-969-748C-109

  Query Match             100.0%;  Score 33;  DB 10;  Length 244;
  Best Local Similarity   100.0%;  Pred. No. 1e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        109 QDPRLF 114


RESULT 37
US-10-047-542-51
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```
; Sequence 51, Application US/10047542
; Publication No. US20020168367A1
; GENERAL INFORMATION:
;  APPLICANT: LARRICK, JAMES W.
;  APPLICANT:  WYCOFF, KEITH L.
;  TITLE OF INVENTION: NOVEL IMMUNOADHESINS FOR TREATING AND PREVENTING VIRAL
;  TITLE OF INVENTION:  AND BACTERIAL DISEASES
;  FILE REFERENCE: 030905.0004.CIP1
;  CURRENT APPLICATION NUMBER: US/10/047,542
;  CURRENT FILING DATE:  2001-10-26
;  PRIOR APPLICATION NUMBER: PCT/US01/13932
;  PRIOR FILING DATE: 2001-04-28
;  PRIOR APPLICATION NUMBER: 60/200,298
;  PRIOR FILING DATE: 2000-04-28
;  NUMBER OF SEQ ID NOS: 101
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 51
;   LENGTH: 602
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-047-542-51

  Query Match             100.0%;  Score 33;  DB 13;  Length 602;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        595 QDPRLF 600


RESULT 38
US-09-950-294-4
; Sequence 4, Application US/09950294
; Patent No. US20020127645A1
;   GENERAL INFORMATION:
;        APPLICANT: Morrison, Sherie L.
;                   Chintalacharuvu, Kote R.
;        TITLE OF INVENTION: SECRETORY IMMUNOGLOBULIN PRODUCED
;                            BY SINGLE CELLS AND METHODS FOR MAKING AND USING
;                            SAME
;        NUMBER OF SEQUENCES: 4
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Merchant, Gould, Smith, Edell, Welter & Schmidt
;             STREET: 11150 Santa Monica Boulevard, Suite 400
;             CITY: Los Angeles
;             STATE: CA
;             COUNTRY: USA
;             ZIP: 90025
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Diskette
;             COMPUTER: IBM Compatible
;             OPERATING SYSTEM: DOS
;             SOFTWARE: FastSEQ for Windows Version 2.0
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/950,294
;             FILING DATE: 10-Sep-2001
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: 09/095,385
;             FILING DATE: <Unknown>
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Canady, Karen S
;             REGISTRATION NUMBER: 39,927
;             REFERENCE/DOCKET NUMBER: 30435.45USU1
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: 310 445-1140
;             TELEFAX: 310 445-9031
;             TELEX: <Unknown>
;   INFORMATION FOR SEQ ID NO: 4:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 608 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: unknown
;             TOPOLOGY: linear
;        MOLECULE TYPE: protein
;        SEQUENCE DESCRIPTION: SEQ ID NO: 4:
US-09-950-294-4

  Query Match             100.0%;  Score 33;  DB 9;  Length 608;
  Best Local Similarity   100.0%;  Pred. No. 2.5e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        600 QDPRLF 605


RESULT 39
US-09-982-107-4
; Sequence 4, Application US/09982107
; Patent No. US20020159958A1
; GENERAL INFORMATION:
;  APPLICANT: HIATT, ANDREW C.
;  APPLICANT:  HEIN, MICH B.
;  TITLE OF INVENTION: METHODS FOR PRODUCING IMMUNOGLOBULINS CONTAINING
;  TITLE OF INVENTION:  PROTECTION PROTEINS IN PLANTS AND THEIR USE
;  FILE REFERENCE: EPI3002E
;  CURRENT APPLICATION NUMBER: US/09/982,107
;  CURRENT FILING DATE:  2001-10-16
;  NUMBER OF SEQ ID NOS: 19
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 4
;   LENGTH: 746
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-982-107-4

  Query Match             100.0%;  Score 33;  DB 9;  Length 746;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 QDPRLF 6
              ||||||
Db        582 QDPRLF 587


RESULT 40
US-10-781-989-4
; Sequence 4, Application US/10781989
; Publication No. US20050202026A1
; GENERAL INFORMATION:
;  APPLICANT: HIATT, Andrew C.
;  APPLICANT:  MA, Julian K.-C.
;  APPLICANT:  LEHNER, Thomas
;  TITLE OF INVENTION: METHODS FOR PRODUCING IMMUNOGLOBULINS
;  TITLE OF INVENTION:  CONTAINING PROTECTION PROTEINS IN PLANTS AND THEIR USE
;  FILE REFERENCE: 415142000303
;  CURRENT APPLICATION NUMBER: US/10/781,989
;  CURRENT FILING DATE:  2004-02-18
;  PRIOR APPLICATION NUMBER: 08/434,000
;  PRIOR FILING DATE: 1995-05-04
;  PRIOR APPLICATION NUMBER: 08/367,395
;  PRIOR FILING DATE: 1994-12-30
;  NUMBER OF SEQ ID NOS: 19
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 4
;   LENGTH: 746
;   TYPE: PRT
;   ORGANISM: Human
US-10-781-989-4

  Query Match             100.0%;  Score 33;  DB 18;  Length 746;
  Best Local Similarity   100.0%;  Pred. No. 3.1e+02;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;
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Qy 1 QDPRLF 6
||||||
Db 582 QDPRLF 587

Search completed: September 26, 2005, 11:07:20
Job time : 128.091 secs

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